

**San Bruno Mountain
Habitat Conservation Plan Amendment 5
Finding of No Significant Impact**

**Summary of Public Comments
And
Service's Response to Comments**

Prepared by
U.S. Fish and Wildlife Service
Sacramento Fish and Wildlife Office
2800 Cottage Way
Sacramento, CA 95825
Contact: Conservation Planning Branch
(916) 414-6600

May 2009

Summary of Comments and Recommendations

We requested written comments from the public on the Plan, Implementing Agreement, permit application, and draft Environmental Assessment (EA) for the proposed Amendment (Amendment) to the San Bruno Mt. HCP. The comment period for the proposed Amendment opened on April 15, 2008, and closed on June 16, 2008. Fifty-six comment letters were received during the 60 day comment period; one was received after the comment period closed. Eleven comment letters were identical with four more letters being nearly identical. We received no comments from Local, State or Federal agencies. We received no requests for public hearings.

Comments and new information received in response to the Amendment that was relevant to the final designation were incorporated in the Service's decision documents as appropriate. Comment letters are summarized below.

Public Comments

Comment 1: One commenter stated that the Service received an incomplete permit application for the Amendment, including the absence of a "Conservation Plan," lack of full written justification for the Amendment, failure to specify impacts to listed species, steps necessary to minimize impacts to listed species, funding available to implement the mitigation, alternatives to the taking and reasons the alternatives were not utilized, other measures the Service may require as being necessary or appropriate, and procedures to EA with unforeseen circumstances.

Response 1: Form 3-200, fish and wildlife application permit, provides one of four options for providing the information required for an Incidental Take Permit (ITP) issued under section 10(a)(1)(b) of the ESA. Option II, amended ITP with major changes, allows applicants to certify, "...statements and information submitted in support of [their] original application for a U.S. Fish and Wildlife Service Incidental Take permit ... are still current and correct, except for the changes listed below..." Option II does not require resubmission of all previous documents; it only requires submission of information relevant to the Amendment. The original HCP, its subsequent amendments, and supporting documents (Agreement With Respect to the San Bruno Mountain Habitat Conservation Plan (Implementing Agreement)(IA), previous biological opinions, NEPA analysis, etc.), are on file with the Service and available upon request; included in these documents is an analysis of impacts, minimization and mitigation measures, funding sources, alternatives considered, and procedures for dealing with unforeseen circumstances.

With respect to the proposed Amendment, an analysis of the impact of the taking was provided in the Biological Study and Analysis of Conserved Habitat for amendments to the HCP for San Bruno Mt. (TRA 2007, p. 24-43) (2007 Biological Study).

Minimization and mitigation measures were provided in the original HCP, subsequent amendments, as well as the Amendment. The Service issued an ITP for the original HCP in conjunction with construction of 1,250 homes, which was later reduced to 579 homes. The Amendment further reduces the number of homes to 499 (Service 2007, p. 1-3) by eliminating Unit II-Neighborhood I (Hillcrest) (UII-NI), which will reduce direct effects to callippe silverspot butterfly and mission blue butterfly on the

Northeast Ridge by 20.36 acres (Service 2007, p. 2-6; TRA 2007, p. 16). The elimination of UII-NI consolidates the remaining residential development on the Northeast Ridge and reduces the level of habitat fragmentation for both the callippe silverspot and mission blue butterfly.

The Amendment increases the amount of habitat in the conserved area (Conserved Habitat) by 8.93 acres. Additional mitigation measures in the Amendment includes revisions to the Habitat Management Plan (HMP) and establishment of a non-wasting endowment (Service 2007, p. 2-8; TRA 2007, p. 6, 45, and A-2), that would provide funding for ongoing habitat management and monitoring activities (Service 2007, p. 2-8) as well as increase the annual charge for 88 residences to \$850 (TRA 2007, p. 45), subject to annual inflation (TRA 2007, p. 2), which is an increase over the existing fee of \$88.56 (Service 2007, p. 2-7). In addition, Brookfield Northeast Ridge II LLC (Brookfield) will fund monitoring for five years in areas that are temporarily disturbed and restored (Service 2007, p. 2-8).

Regarding alternatives actions to the proposed take, the original HCP included a comparison of the proposed Amendment with a no action alternative (i.e., no incidental take resulting from development activities) (HCP 1982, p. IV-6). The assertion made in the HCP was that in the absence of the HCP, and its habitat conservation and enhancement components, species addressed within the HCP would likely become extirpated from the Mountain over the next several decades due to natural succession of grassland habitat to coastal scrub habitat, spread of exotic species, off-road vehicle use, erosion, and wildfires (HCP 1982, p. IV-6); this hypothesis was correct with respect to one species, the Bay checkerspot butterfly (*Euphydryas editha bayensis*). The Bay

checkerspot butterfly previously occurred along the hilltops of the southeast ridge. No development has occurred within the area where Bay checkerspot butterflies were historically observed, but the checkerspot has been extirpated from the Mountain since approximately 1986, which likely was the combined result of prolonged drought and wildfire). The proposed Amendment represents an alternative to the original HCP in that it includes less development, which will result in reduced take of listed species (i.e., a reduced take alternative). The EA also included a No Action Alternative, in which no incidental take would be permitted and development activities on the Northeast Ridge would not occur at this time.

With regard to “unforeseen circumstances,” the original HCP recognized the existence of many uncertainties and included a discussion of unforeseen circumstances (HCP 1982, p. V-12; IA 1982, p. 38), and outlined a method for addressing them. The Service believes the Amendment meets the requirements of the implementing regulations at 50 CFR 17.32[b][2][i]), including an analysis of impacts, minimization and mitigation measures, funding sources, alternatives considered, and procedures to EA with unforeseen circumstances.

Comment 2: One commenter stated that the Amendment could not be approved until December 2009 because the Amendment would affect “planned administrative parcels” and that pursuant to the terms of the IA, amendments may only be approved at three calendar year intervals.

Response 2: The proposed equivalent exchange amendment is being processed

under section IX(A) of the 1982 IA and is not subject to the timing provisions referred to by the commenter. The remaining proposed amendments are being processed under Section IX(B) of the IA, which states that amendments “may be approved only at three calendar year intervals,” commencing with 1985. The HCP amendments at issue were first proposed in 2006, consistent with the timetable set forth in Section IX(B) of the IA. An application was not submitted in 2006 because the Applicants and Brookfield were working cooperatively to address concerns raised by the Service. The underlying purpose of the three year provision was to limit the number and frequency of amendments and ensure that amendment applicants are not subjected to unreasonable delays. Given that the proposed amendment would be the first amendment to the HCP to be approved since 1989, the underlying purpose of the timetable in the IA is satisfied. In addition, since the IA is an agreement between the Applicants and the Service, the parties of the IA may amend the HCP at other intervals if they mutually decide to do so. An attempt to adjust the proposed Amendment to the timelines and approval dates in the IA at this point would cause additional delay and frustrate the purpose of the provision.

Comment 3: One commenter stated the Amendment does not follow the amendment procedures outlined in the IA and as required in the original Service permit by not providing a “biological study,” including behavioral studies, host plant distribution studies, population distribution analysis, and resource distribution analysis, as required in the original permit, and does not demonstrate that the Amendment does not conflict with the primary purpose of the original HCP to provide for indefinite long term perpetuation of species.

Response 3: According to the original HCP a biological study referred to an “Endangered species survey for San Bruno Mountain: biological survey – 1980-1981, prepared by Thomas Reid Associates” (HCP 1982, p. G-1). The original HCP provides no guidance regarding the elements that should be included in a biological study including person hours, survey methodology, or types of surveys. However, the biological study prepared for the Amendment includes a summary of survey data for the callippe silverspot butterfly (*Speyeria callippe callippe*) and its larval host plant Johnny-jump-up (*Viola peduncalata*) (viola) on the Northeast Ridge, larval host plant surveys throughout the entire Mountain (TRA 2007, p. 55-62), and observations of mission blue butterflies (*Icaricia icarioides missionensis*) and callippe silverspot butterflies throughout the Mountain from 1982 to 2001 (TRA 2007, p. 65); this information represents the accumulated data from annual reports, surveys, and habitat enhancement activities (representing several thousand person hours) conducted on the Mountain over the past 25 years. The Service believes the accumulation of more than two decades of data is significantly more detailed than the information in the 1980-1981 “biological study” in the original HCP.

The EA also provides a summary of the distribution of viola on the Mountain in 2004 (Service 2007, Fig. 3-3) and 2005 (Service 2007, Fig. 3-4), the specific distribution of the larval host plant within the Northeast Ridge (Service 2007, Fig. 3-5), as well as a summary of the callippe silverspot butterfly’s current distribution on the Mountain (Service 2007, p. 3-12).

In addition, as noted by the commenter, the biological study needs to demonstrate

that the Amendment does not conflict with the primary purpose of the HCP, which is to provide for the indefinite long term perpetuation of species. The Amendment to the HCP will reduce the amount of disturbed habitat, reduce incidental take, and provide a non-wasting endowment for management and monitoring activities of the HCP. The Service believes the Amendment will significantly improve conditions for the covered species and thus does not conflict with the primary purpose of the HCP.

Comment 4: One commenter stated the Service must prepare a biological opinion to determine if amending the permit will jeopardize the species or adversely modify critical habitat and that the consultation should include re-initiation of consultation as to the effect of the permit and permit amendment on the Mission blue and San Bruno elfin butterflies.

Response 4: Pursuant to section 7(a)(2) of the ESA, Federal agencies are required to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species or adversely modify critical habitat. Since amending the section 10(a)(1)(b) permit is a Federal action and would result in incidental take of listed species, the Service will be required to conduct an Intra-Service consultation and prepare a biological opinion (50 CFR 402.14(c)). If the Service decides to approve the Amendment, the Service will prepare a biological opinion once it has reviewed all relevant information, including public comments.

With regard to re-initiating consultation on the San Bruno elfin and mission blue butterflies, the Service will prepare a new biological opinion for the Amendment, which

will address all Federally listed species covered under the HCP, including the San Bruno elfin, mission blue butterfly, and San Francisco garter snake.

Comment 5: One commenter stated that circumstances have changed since the permit was issued in 1983 and unplanned parcels have become planned, the numbers of butterflies have declined dramatically, revegetation has not worked, and only 55% of funding goes to revegetation work.

Response 5: The Service is uncertain regarding the exact meaning of the comment, which appears to express a general concern that the cumulative effects of amendments, including the proposed amendment (Amendment), may threaten the covered species. The environmental baseline for the current Biological Study explicitly includes development that has occurred since the inception of the HCP, as well as future planned development (TRA 2007, p. 23). In addition, the 2007 Habitat Management Plan (HMP), Appendix B of the current Biological Study, contains an extensive discussion of the current and historical status of butterfly species within the HCP area (San Mateo County Parks 2007, p. IV-8 - IV-30) and considered this information before reaching its conclusion that the proposed amendment will not conflict with the primary purpose of the HCP, which is to provide for the indefinite, long-term perpetuation of the covered species, nor will it appreciably reduce the likelihood of survival and recovery of the species in the wild.

As noted above in Response to Comment 1, the Amendment eliminates the Hillcrest Neighborhood, which will reduce direct effects to callippe silverspot butterfly

and mission blue butterfly on the Northeast Ridge by 20.36 acres (Service 2007, p. 2-6; TRA 2007, p. 16;), increases the amount of habitat in the Conserved Habitat by 8.93 acres, and establishes a non-wasting endowment for ongoing habitat monitoring and management activities.

Pursuant to section 10(a)(2)(B), after public comment, the Service must find that the (1) the taking will be incidental; (2) impacts of the taking will be minimized and mitigated to the maximum extent practicable; (3) adequate funding is ensured; (4) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and (5) other measures will be met. In addition, pursuant to section 7(a)(2), in order to issue an incidental take permit, the Intra-Service biological opinion must come to the conclusion that the proposed Amendment is not likely to jeopardize the continued existence of any endangered or threatened species or adversely modify its critical habitat. If the biological opinion makes a jeopardy determination or concludes there will be adverse modification of critical habitat, then reasonable and prudent alternatives will be required in order to revise the Amendment to ensure the Amendment will not jeopardize the continued existence of any endangered or threatened species or adversely modify critical habitat

Comment 6: One commenter stated the Service has not made information it has received available to the public as required, and continues to violate the ESA.

Response 6: The Service is uncertain what information the commenter believes was not made available to the public. However, as stated in the Federal Register notice

for the proposed Amendment, copies of relevant documents was available to the public by contacting the Division Chief of the Service's Conservation Planning and Recovery Division in the Service's Sacramento Fish and Wildlife Office. Additionally, the Federal Register notice stated, "documents also will be available for public inspection, by appointment, during normal business hours at the Sacramento Fish and Wildlife Office" (Service 2008, p. 20324). The information is still on file and available for public inspection at the Sacramento Fish and Wildlife Office. In addition, the Federal Register notice included the Amendment, the EA, 2007 HMP, and the 2007 Biological Study.

Comment 7: One commenter stated the Amendment violates the terms of the HCP because the original HCP requires that no construction or conversion to urban uses shall be permitted in the area designated as 1-07-04 and that the EA fails to analyze the changes between the proposed Amendment and the project analyzed in a EA/EIR in 1982. In addition, the commenter stated the Amendment does not involve exchange of conserved habitat with land designated as a Development Area and grading has already occurred.

Response 7: The HCP and IA provide that no construction or conversion to urban use shall occur in Conserved Habitat. Conserved Habitat is defined in the HCP as "those portions of San Bruno Mountain Area that are presently or hereafter are to be held in fee ownership by the County and/or the State pursuant to the Agreement With Respect to the San Bruno Mountain Area Habitat Conservation Plan [IA]." The Amendment will modify the boundaries of the Conserved Habitat, in accordance with the procedure set

forth in the IA at IX(A)(3). The proposed modifications to the Conserved Habitat boundaries are described and analyzed in the EA.

Regarding the exchange of parcels designated as Development Areas vs. Conserved Habitat, the Amendment proposed to exchange Development Area 1-07-01 and 1-07-02 (both designated in the HCP as Development Areas) for 1-07-04 (designated in the HCP as Conserved Habitat). In addition, regarding grading that has already occurred, the IA at IX(A)(3) states "...only if no grading has yet occurred after issuance of the Section 10(a) Permit in the proposed new Conserved Habitat..." The 2007 grading did not occur within the proposed new Conserved Habitat boundaries.

Comment 8: One commenter stated an Environmental Impact Statement (EIS) should be required for the proposed Amendment, because the Amendment is a major Federal action that will significantly affect the human and non-human environment. The commenter also stated that scoping for the same Amendment in 2004 had been initiated to prepare an EIS.

Response 8: According to the comment, an EIS is required because the proposed Amendment results in adverse effects to threatened and endangered species and because significant impacts are identified in the EA. The Amendment would add the callippe silverspot and Bay checkerspot butterflies as Covered Species and if approved the ITP would be amended to include authorization of incidental take for callippe silverspot and Bay checkerspot butterflies, in connection with approved development activities in the Northeast Ridge and with ongoing habitat management and monitoring activities already

authorized under the HCP. The Amendment also includes modification of the HCP's existing operating program for the Northeast Ridge parcel, to reduce ground disturbance caused by development activities that are already approved, as well as amend the funding provisions contained in the HCP at section V(B), to provide additional funding for the habitat management activities already authorized under the HCP. The EA did not conclude that the proposed Amendment would cause significant adverse impacts to listed species, but in fact would have a net beneficial effect to the Mountain's listed species including the callippe silverspot and Bay checkerspot butterflies. The EA also concluded that the proposed Amendment would not result in other significant environmental effects. An EIS is not required under these circumstances.

The Service published a Notice of Intent (NOI) to initiate scoping for a proposed amendment to the HCP in 2004, but the 2004 proposed amendment was not the same as the current Amendment described in the EA. The 2004 NOI stated that implementation and maintenance activities that could be covered under the proposed 2004 amended HCP would have included commercial and residential development on planned and unplanned parcels, maintenance by Pacific Gas and Electric (PG&E) on existing transmission and gas lines, maintenance by the San Francisco Water Department on existing water lines, and habitat maintenance and management activities; it did not describe specific activities, such as the reduction in the development footprint for Northeast Ridge, that is covered in the current proposed Amendment. Furthermore, the Amendment proposed in this action does not address any commercial development or any development on unplanned parcels, and it would not authorize maintenance activities by PG&E or the San Francisco Water Department.

Finally, even if the current Amendment were the same amendment considered in 2004, the fact that the Service initiated scoping for an EIS at that time would not require that an EIS be prepared now. The 2004 NOI did not indicate that the effects of the proposed amendment would be significant.

The National Environmental Policy Act (NEPA) requires an EIS only if a proposed Amendment may result in significant environmental effects to the human environment. The Service has prepared an EA for the current Amendment, which concluded that the proposed Amendment would not result in significant environmental effects, largely because the proposed Amendment would reduce the authorized development footprint at the Northeast Ridge and would facilitate management and monitoring activities that are already authorized under the plan.

Comment 9: One commenter stated the EA is inadequate, because the EA does not meet the requirements at 40 CFR 1508.9(b). Further the commenter identified the following nine additional alternatives that should be analyzed under NEPA for the proposed Amendment: (1) no further residential or commercial development activities on San Bruno Mountain; (2) no further residential or commercial development activities on San Bruno Mountain where listed species are likely to occur; (3) no further residential or commercial development activities on San Bruno Mountain where the callippe silverspot butterfly, San Francisco lessingia (*Lessingia germanorum*), Bay checkerspot butterfly, and San Bruno Mountain Manzanita (*Arctostaphylos imbricate*) are likely to occur; (4) amendment of the ITP, HCP, and IA without authorization to take either callippe silverspot butterfly, San Francisco lessingia, Bay checkerspot butterfly, and

currently unlisted San Bruno Mountain Manzanita; (5) no further residential or commercial development activities on San Bruno Mountain where the above species are likely to occur, plus no development in designated buffers around such areas; (6) no deployment on San Bruno Mountain within areas designated as critical habitat for any listed species; (7) elimination of pesticide and herbicide use on San Bruno Mountain; (8) no further residential or commercial development activities on San Bruno Mountain plus increasing funding at the level of an endowment fund of \$10,000,000; and (9) not further monitoring and/or management of San Bruno Mountain to those entities which have been unsuccessful to date, i.e., the San Bruno Mountain Trustees and TRA Associates.

Response 9-1 to 9-9: The Service believes it considered a reasonable range of alternatives in the EA. On one extreme, is the No Action Alternative, which does not amend the ITP; this would result in the continuation of the same scope of management and monitoring actions that have been implemented for the last 25 years and likely no further development on the Northeast Ridge. Under the No Action Alternative enhanced vegetation management actions that may result in take of callippe silverspot butterflies could not occur; therefore the location, timing, and intensity of these actions would be restricted. Implementation of this alternative is likely to result in the continued succession of grassland habitat to coastal scrub and invasion of non-native species; this in turn would likely result in reduction of butterfly host plant density and distribution as well as a decline of the listed butterflies. Under the No Action Alternative the Plan Operator would be unable to conduct habitat management activities within the Northeast Ridge parcel because the Northeast Ridge is private property and access would be limited

to the landowner; this would also likely result in the degradation of grassland habitat on the Northeast Ridge and loss of the population of callippe silverspot butterflies on the Northeast Ridge.

On the other extreme, the Service considered the 1989 VTM Alternative, which would amend the ITP to include take of callippe silverspot and Bay checkerspot butterflies associated with construction of 151 new residential dwellings on the Northeast Ridge (92.59 acres) and continuation of the management and monitoring program. Under the 1989 VTM Alternative, enhanced vegetation management actions that may result in take of callippe silverspot butterflies could occur since callippe silverspot butterflies would be added to the ITP; however, because there would be no additional funding (as in the proposed Alternative), the scope of these actions would be limited to only the highest priority areas. Implementation of this alternative may result in gradual loss of grassland habitat as well as a decline of several of the listed butterflies, similar to the No Action Alternative. Under the 1989 VTM Alternative development on the Northeast Ridge would not be consolidated, which would result in fragmentation of callippe silverspot butterfly populations and loss of hilltopping habitat. Because the development footprint under the 1989 VTM Alternative would eliminate high quality hilltopping habitat, callippe silverspot butterfly populations on the Northeast Ridge would likely not persist.

The preferred Alternative (proposed Amendment) is a “middle ground” alternative between the two extreme alternatives. While the proposed Amendment would result in some take of listed butterflies, the amount of take and impact associated with the take would be much less than the 1989 VTM Alternative and would not eliminate the high quality hilltopping habitat on the Northeast Ridge. In addition, the proposed

Amendment consolidates residential development on the Northeast Ridge and would not further fragment butterfly populations. The proposed Amendment enhances vegetation management and monitoring actions to combat loss of grassland habitat to coastal scrub and non-native species. The proposed Amendment increases Conserved Habitat over both the No Action and 1989 VTM Alternatives and is expected to improve habitat conditions for all listed butterflies on the Mountain.

Comment 10: One commenter stated the EA is unclear with regard as to what the proposed amendment(s) to the HCP is, what constitutes the HCP, and what is the ITP application. Further, the commenter stated the EA fails to adequately describe the project and that the information is so incomplete and misleading the public can not make an informed comparison of the alternatives.

Response 10: The public notice included a biological study, attached to the EA as Appendix A “Biological Study and Analysis of Conserved Habitat for Amendments to the Habitat Conservation Plan for San Bruno Mountain and Incidental Take Permit PRT 2-9818” that described the proposed amendments to the HCP and ITP (TRA 2007, p. 13-14). The biological study also includes the actual text of the proposed amendments in its Appendix A “Proposed amendments to HCP” (TRA 2007, p. A-1 – A-10). After adoption of the proposed amendments, the HCP will consist of the original HCP, as modified by the amendments. The ITP application is discussed in our response to Comment 1 above.

The commenter’s statement that the information in the EA is “incomplete and

misleading” is not specific enough for the Service to provide a specific response; however, specific comments about the information contained in the EA are addressed individually and in detail below.

Comment 11: One commenter asked what environmental baseline was used in the EA, to determine that impacts to Covered Species would be reduced by the proposed Amendment, since take of callippe silverspot butterflies has not been authorized since 1997.

Response 11: The Service is uncertain whether the commenter is referring to the environmental baseline used in a biological opinion or the affected environment used in NEPA. NEPA uses the term “affected environment,” not “environmental baseline”, to establish the context in which a proposed action is analyzed. The basis of comparison between the proposed Amendment and the alternative actions is always the no action condition (43 CFR § 46.30). Pursuant to 40 CFR § 1502.14, the EA included a no action alternative (Alternative 3). The EA defined the No Action Alternative as not amending the existing ITP to include callippe silverspot and/or Bay checkerspot butterflies, little or no new residential development on the Northeast Ridge at this time, and no additional endowment funding or expanded funding for vegetation management (Service 2007, p. 2-15). The EA concluded that the No Action Alternative would have significant negative impacts on callippe silverspot butterfly, because of the inability to conduct enhanced vegetation management, which would result in continued degradation of callippe silverspot butterfly habitat on the Mountain.

In regard to the commenter's question about reduced impacts to the callippe silverspot butterfly, the EA states that without the proposed Amendment, the HCP operator would not conduct habitat management activities within those parcels owned by Brookfield (including the high quality callippe silverspot habitat in parcels 1-07-01 and 1-07-02), an endowment would not be provided, and the annual dwelling charge would not increase from \$88.56 (in 2007 dollars) to \$850 (in 2007 dollars). Without additional funding the current management program would continue as it has, which is expected to result in continued degradation of grassland habitat within the HCP (due to the inability to conduct adequate invasive plant management). Additionally, and perhaps the most significant, under the No Action Alternative, management activities carried out within the Conserved Habitat would be restricted to areas that do not support the callippe silverspot butterfly, its host plants, or areas that support the host plants for the Bay checkerspot butterfly, because habitat management would result in incidental take of these species (incidental take of Bay checkerspot butterflies would only occur if the species was re-established on the Mountain); as noted in the EA, this would eliminate a number of vegetation management options within these areas, including grazing, mowing, and prescribed burns (Service 2007, p. 2-15). As required by NEPA the EA provides a description of the affected environment in Chapter 3 (Service 2007, p. 3-1 – 3-20).

Under the ESA, a biological opinion includes an environmental baseline that includes the status of the species within the action area and factors affecting the species environment within the action area. As noted in our response to comment 4 above, pursuant to section 7(a)(2) of the ESA, the Service will include an environmental baseline and a status of the species in its biological opinion for the proposed Amendment if the

Service approves the Amendment.

Comment 12: One commented stated the project omits the fact that the proposed Amendment extends the life of the permit for one additional year.

Response 12: The Amendment will not change the duration of the ITP. The ITP was issued on March 4, 1983, for a term of 30 years. As noted in the EA, the ITP will expire on March 4, 2013, unless renewed (Service 2007, p. 1-2).

Comment 13: A commenter noted that neither the EA nor the HCP Amendment describes what commercial or industrial activities would occur within the HCP area.

Response 13: The proposed Amendment does not affect any commercial or industrial activities within the HCP area nor authorize incidental take for such purposes. The HCP fees for commercial and industrial development would be updated to maintain consistency with the increased fees for residential units, but this applies only to HCP area within the jurisdiction of the City of Brisbane (City). No such activity is currently planned or authorized within the HCP area, and authorization of such activity would require a separate amendment to the HCP from the proposed Amendment.

Comment 14: One commenter stated the EA does not describe how adding the callippe silverspot and the Bay checkerspot butterfly to the list of species covered by the ITP would “allow the use of more effective vegetation management techniques.”

Response 14: As noted above in Response to comment 12, if callippe silverspot and Bay checkerspot butterflies are not added to the ITP, vegetation management actions that result in take of either Federally listed species can not be conducted because incidental take for these two species is not currently authorized; this is particularly true for management techniques such as fire, mowing, and grazing (Service 2007, p. 4-32 - 4-33). As a result, less efficient and more expensive management methods (such as hand removal) in areas occupied by callippe silverspot, Bay checkerspot butterflies, or their host plants is limited. In some areas management is curtailed altogether. Adding these species to the ITP, in combination with the increased funding made possible by the proposed amendments, will ease existing management constraints, and allow the HCP manager to more effectively Conserved Habitat for the benefit of listed species, including callippe silverspot and Bay checkerspot butterflies (Service 2007, p. 2-8 – 2-9). This is described in more detail in the HMP.

Comment 15: One commenter made the following comments: (1) the acreage for planned development under the 1989 Northeast Ridge Vesting Tentative Map (VTM) is different on page 1-2 (40 acres) from Figure 1-3 (48 acres) in the EA; (2) Figures 1-2 and 1-3 are illegible and thus there is no explanation of the HCP boundaries or the development status for various areas of the Mountain; and (3) the EA and Amendment do not adequately describe the reconfiguration of lands on the Northeast Ridge, and the development of the 71 new single-family homes.

Response 15-1: The 48 acres depicted in Figure 1-3 of the EA includes the Northeast Ridge at 26.0 acres of disturbance as proposed in the 2007 VTM, not the 1989 VTM with an additional 10 acres of disturbance for the Brisbane Office Park project which is planned, and 12 acres for the remaining development on the planned Terrabay project, which totals 48 acres.

Response 15-2: Regarding the legibility of Figures 1-2 and 1-3 in the EA, the Service only received one comment regarding the illegibility of these figures, which suggests other individuals did not have difficulty reading the figures. Both figures include high resolution color aerial photographs and map boundaries produced with ArcGIS software. The Service reviewed both figures and can find no evidence that they are illegible.

Response 15-3: Regarding a description of the proposed reconfiguration, Figure 2-4 in the EA compares the configuration of lots on the Northeast Ridge under the 1989 VTM and the 2007 VTM. The VTMs are also illustrated separately in Figures 2-2 and 2-3 in the EA.

Comment 16: One commenter stated the EA utilizes an incorrect baseline by comparing revised Northeast Ridge development plans to preexisting development authorizations, not the current environment.

Response 16: As noted above in Response to comment 11, NEPA regulations require a description of the affected environment and a comparison of a range of alternatives. The EA properly compares the proposed Amendment to a range of

alternatives, including the no action alternative (i.e., future without the action). The existing HCP includes the 1989 VTM, but with no incidental take; however, this does not imply that build out of the 1989 VTM is an “environmental baseline,” because without incidental take authorization for callippe silverspot butterflies, it is likely that any additional development on the Northeast Ridge could not occur.

Comment 17: One commenter stated the EA does not attempt to describe ongoing vegetation management and monitoring activities across the Mountain and that the EA “claims that the HCP Amendment proposes vegetation management, but the proposed amended HCP does not, in fact, propose any vegetation management.”

Response 17: The commenter is correct that the Amendment does not propose or authorize vegetation management, since these actions are components of the existing HCP and the proposed Amendment does not alter this. However, management and monitoring activities are discussed in the EA (Service 2007, p. 2-9 - 2-13) and in the HMP (San Mateo County Parks 2007), included in the EA as Appendix B, because impacts to callippe silverspot butterfly are likely from these activities. Management activities are already authorized under the existing HCP and ITP; although the 2007 HMP, as part of adaptive management, revises existing management actions. The EA states that the HCP Amendment will provide increased funding for habitat management. The funding, in conjunction with the authorization of incidental take of callippe silverspot and Bay checkerspot butterflies, will make possible the increased performance of vegetation management activities, as discussed at length in the EA and HMP. The

Amendment, however, does not authorize any new management activities. The Amendment would authorize incidental take of callippe silverspot and Bay checkerspot butterflies resulting from those activities.

Comment 18: One commenter made the following comments: (1) the EA does not define how Brookfield funding would enhance vegetation management and monitoring activities on Conserved Habitat (2) and that the term “thatch-build-up” is not defined.

Response 18-1: As noted in Response to comment 11 above, the EA stated that the increased funding provided by Brookfield would make possible the use of more effective and comprehensive habitat management activities, as advocated by the HCP’s Technical Advisory Committee (TAC), allowing the habitat manager to address coastal scrub succession of grassland habitat while continuing efforts to control invasive species. This will allow the habitat manager to halt the gradual loss of grassland habitat and achieve the goal of maintaining at least 1,200 acres of grassland within the HCP area (Service 2007, p. 2-9; San Mateo County Parks 2007, p. 8). This will benefit HCP species of concern that depend on grassland habitat including federally listed butterflies on San Bruno Mountain.

Response 18-2: The term “thatch build-up” is not used as a term of art; it refers to an accumulation of grasses on the ground. Terms of art used in the EA have been defined; terms that have not been defined are intended to have their ordinary and commonplace meaning, as informed by the context.

Comment 19: One commenter asked for the status of 84 acres that have been “graded and restored” and whether native plants and butterfly host plants been successfully re-established.

Response 19: The 84 acres in question comprises the areas temporarily disturbed by HCP-approved development. The HCP requires land owners to perform restoration work in these areas until they meet designated criteria, which are described in the 2007 HMP (San Mateo County Parks 2007, p. II-4 – II-14). The lands are then dedicated to the HCP Operator as Conserved Habitat. The areas that have been “graded and restored” (Service 2007, p. 1-2) vary in their habitat quality. Nearly all restored lands have had ongoing weed control work, and habitat islands (small areas planted with butterfly host and nectar plants and subsequently weeded and maintained) have been established in some restored areas. Nine habitat islands have been created thus far that provide potential habitat for mission blue and callippe silverspot butterflies. Four of these islands have documented occurrences of mission blue butterfly. Most of the habitat islands established thus far on temporarily disturbed slopes are located on the Northeast Ridge.

Comment 20: One commenter stated the EA does not analyze the dispersal of adult callippe silverspot butterflies between the two population centers on the Mountain.

Response 20: Both the EA and the Biological Study discuss the movement of callippe silverspot between the Northeast Ridge and the Southeast Ridge, in relation to

the issues of barriers to movement between the two population centers (Service 2007, p. 3-12, 4-36 - 4-40; TRA 2007, p. 27-29). Additional information is contained in the 1981 Biological Study of San Bruno Mountain (TRA 1982a) that supported the formulation of the HCP in 1983. Although urbanization of the Crocker Industrial Park in Visitacion Valley, which is 600 feet wide at its narrowest point, was assumed to be a total barrier, callippe silverspot butterflies were found to fly between the Southeast Ridge and the Northeast Ridge. Individual silverspot butterflies made this journey by moving through the Industrial Park, or through Conserved Habitat around the western perimeter of the Valley. Dense clusters of tall trees, paved roads, and residential lots were identified as “partial barriers” (San Bruno Mountain Habitat Conservation Plan Steering Committee 1982). Development under the 2007 VTM would be located in an area that is dominated by grassland and blue gum eucalyptus trees (species name). The eucalyptus grove is approximately 25 to 350 feet wide and it extends north to south through Unit II of the Northeast Ridge. Under the proposed Amendment, 6.82 acres of the 7.85 acres eucalyptus grove will be thinned (Service 2007, p. 2-6).

Comment 21: One commenter made the following comments: (1) “there is no analysis of the impact of Conserved Habitat in the discussion of whether the Bay Checkerspot Butterfly will be able to reestablish on the San Bruno Mountain;” and (2) the EA does not define what “the unit” is in reference to where the Bay checkerspot has occurred in the recent past on page 1-5 of the EA.

Response 21-1: The Service is uncertain how to respond to the commenter’s first

sentence referencing the impact of Conserved Habitat and whether the Bay checkerspot butterfly can become reestablished on the Mountain, because the comment is unclear. The Bay checkerspot butterfly was last observed on San Bruno Mountain in 1984 and in San Mateo County in 1997 at the Jasper Ridge Biological Preserve. The statement in the EA regarding reestablishment of the Bay checkerspot butterfly (Service 2007, p. 1-5) is a general statement regarding suitability of the habitat on the Mountain and its ability to support the Bay checkerspot butterfly if the species is reestablished on San Bruno Mountain (either through reintroduction or natural recolonization from other sites in San Mateo County where the butterfly may be reintroduced).

Response 21-2: The “unit” refers to the Critical Habitat unit referred to earlier in the same paragraph of the EA (Service 2007, p. 1-5).

Comment 22: One commenter stated that there is no discussion of HCP measures that will continued to be implemented, does not discuss the impact of continued implementation, what “has been done so far to implement the HCP measures,” or what measures have been successful in minimizing impacts and conserving species.

Response 22: All measures currently detailed in the original HCP and subsequent amendments that are not amended by the proposed Amendment would continue to be utilized. The measures referred to by the commenter specifically address habitat management measures, which as noted in Response to comment 17, are already authorized by the HCP. These measures are described in detail in Chapter 2 of the EA, as well as in the HMP, and their effects are analyzed in Chapter 4 of the EA. The

Amendment only covers incidental take to subsequently listed species that may be caused by these measures. The HMP provides a summary of past implementation of habitat management and its effectiveness (San Mateo County Parks 2007, p. VI-1 – VI-9).

Comment 23: One commenter stated the need for the Proposed Amendment was vague and asked which proposed activities could result in take of callippe silverspot and Bay checkerspot butterflies.

Response 23: The Service disagrees that the need for the proposed Amendment is vague. The current ITP for the HCP does not include the callippe silverspot or Bay checkerspot butterflies. Callippe silverspot butterflies may be taken as a result of activities in the existing HCP, including construction of residential units on the Northeast Ridge and implementation of management actions (i.e., vegetation management) in areas that currently support populations of the callippe silverspot butterfly (Service 2007, p. 1-6). Further, Bay checkerspot butterflies could be taken as a result of vegetation management, if they become reestablished on the Mountain (through reintroductions on the Mountain or recolonization from off-site reintroductions). These activities and their potential to cause take are described at length in the EA, the 2007 Biological Study, and the 2007 HMP.

Comment 24: One commenter stated the EA “does not address the difference between the 1982 and 1983 HCP” and that “the 1983 HCP maybe invalid if adoption did not follow the appropriate approval process.” The same commenter stated, the Service

was not following the correct amendment procedures for the HCP.

Response 24: There is not a “1982” and “1983” HCP. The original HCP was drafted and approved by most permittees in late 1982, and the Service issued the ITP, in early 1983. The HCP was adopted in accordance with legal requirements applicable at the time. Regarding the proposed amendment schedule, please see our response to comment 2 above.

Comment 25: One commenter made the following comments: (1) the EA did not analyze a reasonable range of feasible alternatives; (2) Alternatives 1 and 2 are infeasible because they have adverse impacts on the environment; (3) Alternatives 1 and 2 would allow killing of callippe silverspot and Bay checkerspot butterflies; (4) there is no discussion in the EA that allows development without killing endangered species; and (5) there is no discussion of alternatives that would allow habitat management without take of endangered species.

Response 25-1: NEPA requires the Service to compare a reasonable number of alternatives that cover the full spectrum of reasonable alternatives available to the decision maker—not an infinite number of possibilities (40 CFR 1502.14, 1505.1(e); Council on Environmental Quality, Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations, 48 Fed. Reg. 18026, 18027 (1981) [the “NEPA FAQ”]; *City of Angoon v. Hodel*, 803 F.2d 1016, 1020-1022 (9th Cir. 1986)). Reasonable alternatives are those that are technically and economically practical or

feasible and meet the purpose and need of the proposed Amendment (73 FR 61322).

NEPA FAQ, Question No. 2(a). Other alternatives, excluded from detailed analysis, require only a brief explanation of the reasons for eliminating them. 40 CFR 1502.14(a); *see, e.g., Animal Defense Council v. Hodel*, 840 F.2d 1432, 1441 (9th Cir. 1998).

The alternatives compared in the EA were chosen to represent the full range of reasonable alternatives reasonably available to the Service. This range must be understood in light of the proposed Amendment, which includes (i) the authorization of incidental take for callippe silverspot and Bay checkerspot, and (ii) the amendment of the HCP to modify the existing operating program for the Northeast Ridge and amend the funding provisions contained in the HCP at section V(B). Of the alternatives analyzed in the EA, Alternative 3, the “no-action” alternative, represents one end of the range of possible alternatives. Alternative 3 would neither authorize incidental take of callippe silverspot and Bay checkerspot butterflies, nor modify the Northeast Ridge operating program and HCP funding provisions. Alternative 1, the proposed Amendment, represents the other end of the range. It would both authorize take and modify the Northeast Ridge operating program and HCP funding provisions. Alternative 2 represents a middle ground; it would authorize take but would not amend the HCP to modify the Northeast Ridge operating program and funding provisions. Taken together, these alternatives capture the full spectrum of reasonable alternatives for action, given the nature of the proposed Amendment and the surrounding circumstances.

Response 25-2: The commenter provides no basis for the statement that the alternatives considered in the EA are infeasible because of adverse environmental impacts. The statement in the EA on page 2-15, that development under the 1989 would

not be cost-effective, refers to the No Action Alternative, under which incidental take of callippe silverspot butterflies would not be authorized.

Response 25-3: The comment correctly notes that Alternatives 1 and 2 would authorize incidental take of the callippe silverspot and Bay checkerspot butterflies and that there is no alternative that would allow significant development of the Northeast Ridge without incidental take. The reasons for this are discussed under the No Action Alternative on page 2-15 of the EA.

Response 25-4 to 25-5: The commenter is incorrect in stating that there is no discussion of alternatives that would allow habitat management without take of endangered species. Current habitat management activities are designed to avoid take and would continue under the No Action Alternative. Enhanced habitat management activities, as proposed under the 2007 HMP, would require incidental take authorization for the callippe silverspot and Bay checkerspot butterflies, for the reasons discussed in the EA, the HMP, and Response to comment 14 above; this is one of the reasons for the proposed Amendment, as advocated by the HCP TAC, and as identified in the EA's statement of project purpose and need (Service 2007, p. 1-2).

Comment 26: One commenter stated the EA fails to define the project objectives and does not identify the proposed alternative locations that were considered for the project. Additionally, the commenter asserts the EA "does not define the purpose and need for the proposed Amendment used as criteria for rejection of alternative locations" and that the EA does not clearly define the landowner's developmental rights or existing development rights.

Response 26: Project objectives are described on page 1-6 of the EA (Service 2007). As the EA explains locations for development are constrained by existing HCP parcel designations and existing development and infrastructure. Thus, alternative locations were eliminated from consideration (Service 2007, p. 2-16). The references to existing development rights are to the 1989 VTM and associated development approvals for the Northeast Ridge, which are part of the existing HCP.

Comment 27: One commenter stated the EA omits the following information: (1) endangered butterfly monitoring (distribution and relative abundance for the callippe silverspot, mission blue, and San Bruno elfin butterflies); (2) rare plant distribution data in GIS format for the last 5 years for all listed plants; and (3) effectiveness monitoring (for tracking invasive species) over the last 25 years.

Response 27-1: The EA is intended to be a concise document that does not contain all technical data gathered on San Bruno Mountain over the last 25 years. CEQ regulations describe EAs as “concise” documents that “briefly” provide information sufficient to determine whether preparation of an EIS is necessary.

Response 27-2 to 27-3: The data referred to in the comment is summarized in the EA, HMP, and the Biological Study. The raw data is not necessary to a description of the proposed Amendment, its effects, the alternatives or the persons and agencies consulted (40 CFR 1508.9(a)-(b)). To the extent that the data is relevant to analysis of the proposed Amendment, it has been provided to the Service in numerous annual reports for the last

25 years and is part of the administrative record. As noted above, the documents in the administrative record are available from the Service by contacting the Division Chief of the Service's Conservation Planning and Recovery Division in the Service's Sacramento Office or documents may be reviewed in person at the Service's Sacramento Office (73 FR 20324, 20325).

Comment 28: One commenter stated the EA "fails to adequately define the alternatives" and provided numerous comments under this heading including: (1) not describing or making available the 2007 VTM; (2) contradictory acreage and number of residences described in alternative 1; (3) Figure 2-3 does not clearly depict the proposed Amendment and fails to show Court B and Golden Aster Court; (4) alternative 1 contradicts the City's 2007 Addendum for the same project by 0.14 acres; (5) the EA makes it impossible to tell where Unit I ends and Unit II begins, thus avoiding an analysis of the illegal building in Court B and Golden Aster Court; (6) no explanation as to what constitutes the remaining dwellings; (7) the EA "fails to define the "need" being satisfied when it discusses the specific project or activities that triggered the "need" for issuance of an amendment to the existing ITP"; and (8) "Unit II-N-II has increased by .84 acre but there is no analysis."

Response 28-1: The 2007 VTM is described in the EA (Service 2007, p. 2-3 – 2-6) and depicted on Figure 2-3 (Service 2007). The 2007 VTM is also described in the HMP (San Mateo County Parks 2007, p. 5-7) and depicted on Figure 4 of the Biological Study (TRA 2007, p. 54). A visual comparison with the 1989 VTM is provided in the

EA on Figure 2-4 (Service 2007).

Response 28-2: The Service is uncertain which acreages or number of dwellings to which the commenter is referring. The EA states that Alternative 1 (proposed alternative) includes 16.67 acres of permanent habitat loss and 2.97 acres of temporary loss for a total of 19.64 acres (Service 2007, p. 1-4, 2-2, 2-5, 4-3, 4-5, 4-14, 4-17, 4-18, 4-29, 4-49, and 4-66). Alternative 1 includes 71 homes in Unit-II Neighborhood-II (UII-NII), which is the number used throughout the EA (Service 2007).

Response 28-3: Regarding Figure 2-3 not clearly depicting the separation of Units I and II, the Service understands the commenter's difficulty in discerning the boundaries in Figure 2-3, likely due to the diagram being superimposed on a color aerial photograph; however, taken in conjunction with Figure 2-4 (without the color aerial photograph), where the division between Units I and II is shown by a bolded black line and dwellings are numbered in Unit II but not Unit I, the Service believes the general public was able to adequately identify the two units.

Response 28-4: The difference in acreage between the Amendment and the City's 2007 addendum, are caused by further revisions to the project between the time the City's addendum was prepared (June 2007) and the time the EA and other documents were published in the federal register (April 2008). The 4.97 acres provided in the EA represents the correct acreages for the proposed Amendment.

Response 28-5: The construction of 17 dwellings in Court B and Golden Aster Court are not part of the proposed alternative. Construction of the 17 dwellings was previously analyzed under the 1989 VTM and related approvals, as part of Unit II. Construction of Unit II was delayed by the listing of the callippe silverspot butterfly in

1997, which limited grading and related activities on much of the Northeast Ridge. However, in 2006 the City in conjunction with the Service determined that construction of 11 dwellings at Golden Aster Court could proceed because it was not likely to adversely affect the callippe silverspot butterfly, because it would occur within an area of 5.67 acres, north of Unit I, that had been disturbed in 1995 and 1996 by remedial grading required for Unit I. As a result of the previous grading, this area did not contain potential habitat for callippe silverspot or Bay checkerspot butterflies, and take authorization was not required (Service 2007, p. 2-3 – 2-4). In 2007, the Service and the City determined that an additional 1.07 acres needed to be graded for the purposes of public health, safety, and welfare. Subsequently, the City and the Service determined that six additional dwellings could be constructed on the graded 1.07 acres. The EA evaluates the impacts of grading on 1.07 acres (Service 2007, p. 2-4; 4-4; 4-5; 4-13; 4-14; 4-17 - 4-19; 4-21; 4-23; 4-25 - 4-27; 4-29; 4-44; 4-46; 4-49; 4-54; 4-66) that was not analyzed in previous NEPA documents.

Response 28-6: No page number was provided in the commenter's question in regards to "what constitutes the remaining dwelling units;" however, the Service believes the commenter is referring to the phrase on page 2-2 of the EA. In this context, the remaining dwelling units refers to homes proposed for construction under the 1989 VTM that are currently covered under the HCP for IT of covered species except for the callippe silverspot butterfly, as noted in the same paragraph (Service 2007, p. 2-2).

Response 28-7: Regarding the EA failing "to define the need being satisfied when it discusses the specific project or activities..." as discusses in the EA, the need is to amend the ITP to include species (callippe silverspot and Bay checkerspot butterflies)

that were federally listed after the original HCP was completed and could be taken as a result of work activities already covered under by the HCP (including vegetation management in areas with callippe silverspot butterflies and the construction of some of dwellings in UII-N-II (Service 2007, p. 1-4; 1-6; 2-3).

Response 28-8: Regarding the increased size of disturbed area in UII-NII by 0.84 acres, the EA includes this acreage in the total 19.64 acres of UII-NII, which is analyzed as part of Alternative 1 (the proposed Amendment) throughout the EA; in addition, as identified in Table 2-2 of the EA (Service 2007, p. 2-5), there is an overall reduction in the amount of disturbed area between the existing HCP and the proposed Amendment by 20.36 acres.

The Service's response to the comment regarding effects due to landscaping, acreage affected due to fuel management zones, and location and acreage of the emergency vehicle access (EVM) are addressed below in Response to comment 29.

Comment 29: One commenter stated the EA fails to analyze the following activities: fuel management zones, emergency vehicle access, concrete v-ditches and stormwater runoff (and where the water will be conveyed). In addition, the commenter stated the EA did not provide information regarding alternatives, description of parcels, or consistency with other analyses. The commenter also stated the amount of funding provided by the Home Owner's Association (HOA) is not identified nor what "required" maintenance the HOA may need to do and whether "the agreement" between the HOA and the City has been created.

Response 29: The EA states that the HOA may remove woody material that is

within the fuels management zone and within 30 feet of adjacent lots (Service 2007, p. 2-5). The comments regarding the EA's description of Alternative 1 address many related issues. For the sake of efficiency and clarity, this response groups the comments according to their subject matter and addresses them together.

Description of alternatives: The commenter states that relevant information regarding the alternatives is not defined, described, or available. In many cases, the terms referred to are self-explanatory or are clear from the context, as noted above in Response to comment 19. Terms that do not refer to their common meanings are defined in the EA.

Missing information: With regard to the information referred to as absent (i.e., 2007 VTM, effects of landscaping on listed species, acreage affected due to fuel management zones, and location and acreage of the EVA), all of this information is presented in the EA. In addition, the list of references provided in the EA (Service 2007, p. 7-1) identifies the documents referred to, which are on file and available as part of the administrative record for the proposed Amendment (including all City approvals for the Northeast Ridge project) at the Sacramento Fish and Wildlife Office; in addition, where documents are available on the world wide web, their locations are provided in the References section of the EA.

Description of parcels: Regarding description of parcels "other than 1-07-02," these parcels are not significantly affected by the proposed Amendment. However, they are described on page A-10 of the Biological Study. Note that Management Unit 1-07-02 contains all the areas permanently disturbed by the Phase II development, which is the subject of the proposed amendment. Unit 1-07-03 contains all the land within the Northeast Ridge parcel that ultimately will be dedicated as Conserved Habitat.

Regarding the 2.97 acres of temporarily disturbed habitat designated as conserved habitat, this area will be revegetated, as required by the HCP, and then dedicated to the HCP Operator as Conserved Habitat. This practice occurs throughout the HCP area and is consistent with the HCP and 2007 HMP. The only change from the existing HCP is to reduce the area of temporarily disturbed habitat.

Consistency with prior analyses: Regarding the statements that the EA is inconsistent with prior environmental analyses, these differences reflect changes in the development plans for the Northeast Ridge that occurred as the local and federal permitting processes progressed. To the extent that the changes are relevant, they are analyzed in the EA and do not alter the conclusion that impacts are not significant. Further, the Amendment includes a reduction in the amount of development on the Northeast Ridge from levels previously analyzed in past environmental documents associated with the HCP.

Fuel management zones: Regarding fuel management zones, the Biological Study (TRA 2007, p. 5) states fuel management zones affect 1.44 acres. Effects of landscaping alone are discussed in the Biological Study (TRA 2007, p. 29). Effects of landscaping as part of implementing the 2007 VTM are discussed in the EA (Service 2007, p. 4-24 – 4-44). The maintenance activities in the fuel zones and landscaping are consistent with existing HCP provisions. The EA states that the HOA may remove wooded material that is within the fuel management zone and within 30 feet of adjacent lots (Service 2007, p. 2-5).

Emergency Vehicle Access construction area: The EVA construction area referred to is 20 feet wide and 180 feet long; this information, as well as a description and

map of its location, were provided in the Biological Study (p. 6; 54) and the EA (p. 2-6; Figure 2-3). The locked gates to EVA areas would not affect public services because service providers would have the ability to unlock the gates as needed.

V-ditches: The v-ditches referred to will be located in areas already disturbed by construction and will cause no additional impacts. As noted in the EA (Service 2007, p. 2-5) concrete v-ditches would be installed on the graded slopes within the fuel modification zone as identified on Figure 1-4 of the EA (Service 2007). The possibility that installation of the v-ditches in previously disturbed areas will affect listed species is very remote given that graded areas do not provide habitat; further, they will require minimal maintenance that will be carried out under the supervision of a biologist, and accordingly is not a focus of the project description. Likewise, the storm water runoff from v-ditches is not likely to adversely affect listed species; however, storm water impacts are addressed in Chapter 4 of the EA. In addition, contrary to the assertion that the EA does not disclose where stormwater runoff is conveyed, the EA states “the Northeast Ridge contributes runoff to three watersheds: Guadalupe Valley, Visitacion Valley, and directly into San Francisco Bay. The majority of runoff from the site drains into the Guadalupe Valley watershed (Service 2007, p. 3-5).”

Comment 30: One commenter stated that the project lacks a definition of catchment walls and that it is uncertain whether final design and approval “will depend on an analysis of Hydrology or Geology (p. 2-6).”

Response 30: As described in the EA, the catchment walls are located on the

perimeter of the Northeast Ridge development and are intended to retain any rock and/or debris flows from the slopes surrounding the project, so that any such debris does not affect residences or public rights of way (Service 2007, p. 4-13). The approximate location of the catchment walls is shown on Figure 1-4 of the EA, but the exact location and extension of the catchment walls will be determined by the City Engineer based upon their review of the large scale grading and improvement plans, which are typically prepared after the initial entitlement documents.

The City Engineering Department and the City's geotechnical consultant will review the final design of the catchment walls to assess their structural integrity and ability to collect rock and debris flows. The design review will be based upon the same geotechnical criteria employed in conjunction with earlier development at the Northeast Ridge, including analysis of the soils report and other documentation that the City Engineer deems relevant. The area of disturbance associated with the catchment walls is part of the 2007 VTM (Service 2007, p. 2-6; 2-7) and is included in the analysis of the proposed Amendment in the EA.

Comment 31: One commenter made the following comments: (1) the Northeast Ridge does not currently contains a 7.85 acres eucalyptus grove; (2) the EA does not clearly state the existing approvals that require the removal and thinning of the grove; and (3) the EA does not state who issued the approvals, or why the removal/thinning has been delayed due to listing the callippe silverspot butterfly.

Response 31-1: The Service is uncertain whether the commenter was referring to

the specific acreage provided in the EA regarding the size of the eucalyptus grove or whether the commenter was implying there are no eucalyptus trees on the Northeast Ridge at all. The Northeast Ridge site at one time contained eucalyptus trees within both Unit I and II. The original HCP and the 1982 and 1989 City development approvals addressed the thinning and removal of eucalyptus trees on the entire site in conjunction with each phase of the Northeast Ridge project.

Response 31-2: The City issued the first tree removal permit in Unit I in 1990, the grading permit for Unit I in 1991, and final map approval for Unit I in 1995. As a result, removal of the eucalyptus grove within Unit I did not commence until 1994, when grading and development for Unit I began.

Response 31-3: On December 5, 1997, prior to beginning site preparation for Unit II, the callippe silverspot butterfly was listed under the ESA. Although eucalyptus removal was not likely to adversely affect the callippe silverspot butterfly (and therefore the tree removal did not require authorization for incidental take of callippe silverspot butterflies), Brookfield and the Service agreed at the time to delay the tree removal activities in Unit II, pending the amendment of the HCP to add the callippe silverspot to the ITP, in part, due to continued threats of a lawsuit being filed on behalf of San Bruno Mountain Watch (SBMW) if any activity occurred within Unit II.

In September 2007, the Habitat Manager (TRA) determined that thinning of the eucalyptus trees in Unit II would not cause impacts to butterfly habitat. In November 2007, after completion of the EA, the Service concurred that thinning of eucalyptus trees, in adherence to the 1989 VTM and subsequent HCP amendments, on the Northeast Ridge would not result in take of the callippe silverspot butterfly. The portion of the trees

covered by the 1989 VTM were thinned and/or removed between December 2007 and June 2008 with oversight by the City and the HCP Operator. If the Amendment is finalized, additional thinning will be performed under the 2007 VTM. The additional thinning and removal is expected to benefit butterfly species because dense clusters of tall trees, such as eucalyptus, have been found to inhibit the growth of butterfly host and nectar plants and can act as partial barrier to movement.

Comment 32: One commenter stated the EA does not address indirect impacts that could occur as a result of disturbance to 19.64 acres in UII-NII as a result of the 2007 VTM.

Response 32: The commenter did not specify which indirect impacts they believe are not addressed in the EA. Therefore, the Service can not provide a specific response. However, direct, indirect, and cumulative impacts are discussed as a whole for each resource under each alternative throughout Chapter 4 of the EA (Service 2007, p. 4-1 – 4-76).

Comment 33: One commenter stated (1) the EA does not provide criteria for determining “high quality” or “low quality;” (2) recommended use of the term “medium quality;” and (3) the EA fails to address whether there are risks to slopes.

Response 33-1: References to high quality habitat generally are to hilltop habitat areas. However, a discussion regarding areas that are of high biological value to listed

butterflies is provided in the Biological Study (TRA 2007, p. 17-18) and includes contiguous grasslands, presence of extensive stands of larval host plants, adult nectar sources, and hilltops.

Response 33-2: The suggested use of “medium quality habitat” is noted.

Response 33-3: The comment regarding “risks to slopes” the commenter provided no context to the comment except to cite page 2-7 of the EA. The term “slope” does appear on page 2-7 of the EA in relation to reduced grading for stabilizing slopes as a result of catchment walls. However, beyond this, the Service is uncertain regarding the meaning of the comment.

Comment 34: One commenter stated (1) the EA states a total of 20.36 acres of additional Conserved Habitat would be dedicated, does not state what this addition is compared to nor state what is being compared in the statement “reductions in the size of the NER development area increase the size of the Conserved Habitat (p. 2-6);” (2) the EA does not identify where there is Conserved Habitat off-site that contains corridors between larger Conserved Habitat areas on-site; (3) there is no explanation of how 78.27 acres of Conserved Habitat in Unit II would be granted to the Plan Operator, when the land would be granted, or whether it was part of the HCP operating program; (4) there is no discussion of Court B or Golden Aster Court in the discussion on page 2-6 of the EA; and (5) the acreages in Table 2-3 are contradicted by the 1982 Environmental Impact Report (EIR) and 1989 Addendum.

Response 34-1: The basis for comparison acres of Conserved Habitat in the

proposed Amendment is the existing HCP and the 1989 VTM and associated approvals. Dedication of the Conserved Habitat in Unit II will be offered at the time of final map recordation, except for temporarily disturbed areas, which must be restored by Brookfield prior to dedication as Conserved Habitat. A description of the operating program provided in the Biological Study (TRA 2007, p. A-8).

Response 34-2: Regarding corridors, Figure 1-2 (Service 2007) depicts the location of Conserved Habitat on the Mountain, including the area on both sides of Guadalupe Canyon Parkway, which connects the habitat on the Northeast Ridge with habitat on the rest of the Mountain. However, the discussion on page 2-7 of the EA was not in regard to corridors off-site, but connection with existing higher quality habitat within the Northeast Ridge (i.e., the area identified as UII-NI (Viewpoint North) that is part of the 1989 VTM, but is not proposed for development under the Amendment.

Response 34-3: Dedication of the Conserved Habitat in Unit II will be offered at the time of final map recordation, except for temporarily disturbed areas, which must be restored by Brookfield prior to dedication as Conserved Habitat. See the text of the proposed operating program provided in the Biological Study on page A-8.

Response 34-4: With respect to the comment regarding Court B and Golden Aster Court, please see our response to comment 39 below.

Response 34-5: The commenter did not state which information in Table 2-3 contradicts the 1982 EIR or 1989 Addendum. However, the Service is not aware of a “contradiction” between Table 2-3 of the EA (Service 2007) and the 1982 Environmental Impact Report (EIR) or the 1989 Addendum. Table 2-3 of the EA is a comparison of Conserved Habitat between the 1989 and 2007 Northeast Ridge VTMs. It shows only the

Conserved Habitat within Unit II (as noted in the table's description), not Conserved Habitat within the entire Northeast Ridge or within the entire HCP. Please see Figure 1-2 of the EA for a depiction of Conserved Habitat in the entire HCP.

Comment 35: One commenter made numerous comments regarding vegetation management under Alternative 1 (the proposed Amendment), including: (1) what and where “priority areas 1, 2, and 3” are; (2) definition of “other” rare species; (3) no description of future iterations of the HMP; (4) no definition of what management actions have been successful to date; (5) “no analysis of when priority 1, 2, and 3 will be funded; (6) deferment of an analysis of the Stewardship Grazing Program; (7) no definition of where hand work would occur; (8) no discussion of impacts from “flaming, herbicide application, micro-burns, and pile burning” on air quality; (9) whether or not “past herbicide spraying created the brush (i.e., thatch) that now seek to remedy”; (10) whether or not well-defined management objectives have been created for prescribed burning; (11) no description of where “successful habitat island” have been created; (12) no definition of “monitoring requirements” of the HCP or “contemporary scientific practices”; and (13) no description of how monitoring will occur.

Response 35-1: The vegetation management priority areas are explained in the 2007 HMP (including acreage and when they would be funded), attached to the EA as Appendix B (San Mateo County Parks 2007, p. VII-1 – VII-3).

Response 35-2: The reference to “other” species is to rare and endangered species on the Mountain other than butterflies (Service 2007, p. 2-9), which is discussed

in the HCP on page G-7 to G-9.

Response 35-3: To the extent that effects of management and monitoring under future iterations of the HMP are properly analyzed as potential cumulative impacts, these are addressed in Chapter 5 of the EA. However, future iterations of the HMP do not yet exist, nor do they constitute part of the proposed Amendment. Future versions of the HMP will reflect the management principles set forth in the HCP and current HMP and are a component of adaptive management. If future iterations of the HMP result in impacts that have not been analyzed to date or that require revisions to the ITP issued by the Service, further environmental review will occur.

The management and monitoring program of the HCP is not part of the proposed Amendment. Please see our response to comment 17 above. The monitoring requirements are discussed in the 1982 HCP at III-17 to III-21. The 2007 HMP describes an enhancement of the existing HMP as a result of supplemental funding provided by the Amendment. The 2007 HMP is not substantively different from the existing management program in that the methods used to implement the HMP are the same. The 2007 HMP expands the pace at which these actions occur as well as the extent to which they occur. Information regarding management methods is provided in the 2007 HMP in Chapter V.

Response 35-4: The status of habitat management action from 1982 and 2007 are discussed in the 2007 HMP (San Mateo County Parks 2007, p. VI-1 to VI-9).

Response 35-5: The homes within UII-NII may be built in phases, with multiple final maps recorded. Reflecting this phased development schedule, deposits to the Endowment Fund will be made incrementally, as homes are built and/or occupied within

UII-NII. The precise timing of deposits for each phase will be determined by a subdivision improvement agreement between Brookfield and the City, but deposits to the Fund will occur no earlier than the recordation of each final map and no later than the issuance of a certificate of occupancy for each phase.

Response 35-6: As noted above, the HMP is an existing component of the HCP and its impacts have been analyzed in previous environmental documents and biological opinions. The Amendment only provides additional funding to continue and enhance existing vegetation management and monitoring actions, including grazing. However, the EA describes grazing on page 2-10 (Service 2007) and the impacts of grazing are discussed throughout Chapter 4 (Service 2007, p. 4-13; 4-14; 4-17 - 4-20; 4-24; 4-26; 4-28; 4-29; 4-32).

Response 35-7: Vegetation control through hand work may occur throughout the Conserved Habitat, as are the majority of vegetation management actions. In addition, as previously noted the 2007 HMP is not part of the proposed Amendment, since vegetation management is an existing component of the HCP and has been previously analyzed; however, a discussion of impacts from management actions in the HMP, including hand work, is discussed in Chapter 4 of the EA (Service 2007).

Response 35-8: Regarding a lack of discussion in the EA on the impact of flaming, herbicide application, micro-burns, and pile burning on air quality, the EA includes an updated discussion of the impacts of management and monitoring activities on air quality (Service 2007, p. 4-8; 4-9). However, as noted above the proposed Amendment does not include actions carried out as part of vegetation management; these actions are existing components of the HCP and its HMP and were previously analyzed.

The 1982 EIR/EA mitigation measures shall continue to be implemented on the Mountain (Service 2007, p. 4-35). In addition, as stated on page 4-7 of the EA, the Plan Operator would implement all applicable Bay Area Air Quality Management District's (BAAQMD) control measures identified in the BAAQMD 2000 Clean Air Plan and vegetation management and monitoring activities are, and would continue to be, in compliance with local and regional plans (Service 2007, p. 5-4).

Response 35-9: The comment regarding past herbicide application, and whether or not it has contributed to thatch build up, is not applicable to the proposed Amendment since it is not part of the Amendment. As noted in the comment, reference to thatch build up may have resulted from past herbicide application is made in the EA (Service 2007, p. 2-10); however, thatch build up more commonly is the result of the natural accumulation of dead plant matter.

Response 35-10: Management objectives are discussed in section 2 of the 2007 HMP (San Mateo County Parks 2007, p. II-1 to II-14).

Response 35-11: A description of where existing vegetation management actions have been successful in creating "habitat islands" is not applicable to the proposed Amendment. As noted above, the 2007 HMP is not a component of the Amendment. Vegetation management actions are an existing component of the HCP; however, habitat islands are depicted on Figure 21 of the 2007 HMP (San Mateo County Parks 2007, p. VI-7).

Response 35-12 to 35-13: Effectiveness monitoring is described in Section VIII of the 2007 HMP (San Mateo County Parks 2007, p. VIII-1 to VIII-9).

Comment 36: One commenter stated: (1) the EA does not define what mitigation

measures are required for the amended HCP; (2) there are no mitigation measures in the 1-07 operating program as amended; (3) the EA does not state how much the dwelling unit charge could decrease to (based on annual adjustments); (4) the HCP boundary is not clearly defined; and (5) the EA does not state long the endowment will take to be funded.

Response 36-1 to 36-2: The 1982 HCP's required mitigation measures are discussed in the Implementing Agreement and is part of the public record, which is available at the Service's Sacramento Fish and Wildlife Office, and summarized in Table 4-1 of the EA (Service 2007). The amount of development proposed in the Amendment is a reduction from that identified in the existing HCP. Although the callippe silverspot butterfly was not listed at the time the 1982 HCP was finalized, the HCP and EA/EIR included the callippe silverspot as one of the Species of Concern. Impacts to the callippe silverspot were analyzed (Service 1982, p. III-13, III-18) and mitigation measures were provided (Service 1982, p. III-18 – III- 22, III-23 – III-24a). The new measures identified in the EA on page 2-7 (Service 2007) are in addition to the existing mitigation measures in the HCP.

Response 36-3: Regarding the dwelling unit charge, it is anticipated that the charge will increase each year; as the EA explains, the charge is tied to the area Consumer Price Index, which typically increases each year to reflect the effects of inflation.

Response 36-4: The HCP Boundary is clearly shown on numerous figures in the EA, Biological Study, and 2007 HMP. Figures where the HCP boundary is depicted include, but are not limited to Figures 1-2 and 1-3 in the EA (Service 2007), Figures 2

and 4 in the 2007 HMP (TRA 2007, p. III-4; IV-10;), and Figures 9 and 10 in the Biological Study (TRA 2007, p. 63-64).

Response 36-5: Regarding funding of the Endowment Fund, the homes within UII-NII may be built in phases. Reflecting this phased development schedule, deposits to the Endowment Fund will be made incrementally, as homes are built and/or occupied within UII-NII. The precise timing of deposits for each phase will be determined by a subdivision improvement agreement between Brookfield and the City, but deposits to the Fund will occur no earlier than the recordation of each final map and no later than the issuance of a certificate of occupancy for each phase. This follows the existing procedures for funding described in the existing HCP and IA (San Bruno Mountain Habitat Conservation Plan Steering Committee 1982, p. 21-26).

Comment 37: One commenter made several comments regarding Alternative 2. Specifically the commenter stated: (1) the EA did not describe the 1989 project proposal the same as the 1989 Addendum; (2) in the 1989 Addendum there were three units not two and neighborhood names were not the same as used in the EA; and (3) the EA uses different acreages and number of residences to describe Alternative 2 than described in the 1989 Addendum.

Response 37-1 to 37-2: The commenter incorrectly states the 1989 Addendum included three units instead of two. According to the 1989 Addendum there were two Units (TRA 1989, p. I-17, III-16, III-21, III-71), which included Unit I-Neighborhoods I, II, and III, and Unit II-Neighborhoods I and II.

Response 37-3: Alternative 2 includes construction of 151 homes in Unit II of the Northeast Ridge development, resulting in the permanent disturbance of 25.6 acres and the temporary disturbance of 14.4 acres (Service 2007, p. 2-14). Originally, the 1989 VTM included 168 homes in Unit II, but 17 units were transferred from Unit II to Unit 1 in 2006/2007, and construction of these homes has been completed. Please see Response to comment 39 below. Pursuant to the 1989 VTM, there are 151 homes remaining to be built within Unit II, which is reflected in the description of Alternative 2.

The 2007 VTM, only includes the construction of 71 additional homes (minus the 17 homes transferred to Unit I), and is a reduction of 80 homes compared to the remaining 151 homes under the 1989 VTM. For the most part, the EA states this figure correctly. However, the commenter is correct in that the EA inaccurately states in three places that the 2007 VTM constitutes a reduction of 97 homes (Service 2007, p. 4-74, 5-3, 5-4). These misstatements, which occur in the discussion of air quality and population growth impacts, do not materially affect the analysis or conclusions contained in the EA.

Comment 38: One commenter stated the EA fails to substantiate the claim that 5.3 acres of grasslands are converting to coastal scrub per year and that management activities have taken place on the Mountain since 1999 without take authorization.

Response 38: The statement that 5.3 acres of grassland are converting to coastal scrub each year is an average and is based upon monitoring data that shows 122 acres of grassland have succeeded to coastal scrub between 1982 and 2004, which equates to an average loss of 5.3 acres per year (TRA 2007, p. 25; San Mateo County Parks 2007, p. 2).

The commenter correctly states that some vegetation management activities have taken place within Conserved Habitat over the life of the HCP. However, incidental take authorization is needed in order to expand the size and pace of management actions that occur within areas of habitat for listed butterfly species that are not currently covered by the ITP. Also please see Response to Comment 11 above.

Comment 39: One commenter made numerous comments regarding Court B and Golden Aster Court similar to those above in comments 28 and 34.

Response 39: The comment addresses the EA's analysis of the homes developed at Court B and Golden Aster Court, lots 1-17 (Service 2007, Figure 2-4). As noted above in Response to comments 28 and 34, construction of the 17 homes is not part of the proposed Amendment. Construction of the homes is already complete, and no authorization is needed under the proposed Amendment.

Construction of the 17 homes was authorized under the 1989 VTM and related approvals, as part of Unit II. Construction of Unit II was delayed by the listing of the callippe silverspot in 1997, which limited grading and related activities on much of the Northeast Ridge. However, in 2006 the City and the Service determined that construction of 11 homes at Golden Aster Court could proceed without resulting in incidental take of callippe silverspot butterflies because it would occur within 5.67 acres that had been previously graded in 1995 and 1996 for Unit I. As a result of the previous grading, the area did not contain habitat for callippe silverspot or Bay checkerspot butterflies, and no incidental take authorization was required (Service 2007, p. 2-3, 2-4).

In 2007, the City determined that grading was required in an additional 1.07 acres, to protect public health, safety, and welfare (the “2007 Infrastructure Grading”). The Service was informed of the proposed grading, which was documented through the Site Activity Permit process. The Service stated that it would not oppose actions deemed necessary to prevent loss of human life or property, which is consistent with the Service’s policy regarding consultations on “emergency actions” where the action may proceed prior to conclusion of consultation to ensure the safety of human life and property. Once grading and actions deemed necessary by the City to protect human life and property was completed, six homes at Court B (Lily Court) were constructed within the 1.07 acres area of the 2007 Infrastructure Grading.

The 17 homes were constructed consistent with the existing development approvals under the HCP and 1989 VTM, not the 2007 VTM. Although originally designated as part of Unit II, the homes were treated as part of Unit I for purposes of the Home Owners Association (HOA), and they are described as such in the EA.

The 2007 Infrastructure Grading and the construction of the 17 homes are not part of the proposed Amendment; their impacts were analyzed as part of the 1989 VTM and related approvals. However, the EA and Biological Study do not treat these activities as part of the environmental baseline. The decision was made to consider the ground-disturbing effects of these activities along with the effects of the proposed Amendment, out of an abundance of caution to ensure that all contemporaneous impacts to callippe silverspot butterfly habitat were captured for analysis, even if they had been addressed in previous environmental analyses. The EA treats this land as undeveloped and includes the ground-disturbing effects of these activities in the analysis of both Alternative 1 (the

proposed Amendment) and Alternative 2 (development under the 1989 VTM), which ensures that the analysis does not improperly favor the proposed alternative.

The approach taken may overstate the effects of the proposed Amendment slightly, to the extent that the impacts should have been included in the baseline and/or should have been addressed as potential contributors to cumulative effects rather than as effects of the proposed Amendment. Nevertheless the EA reached the conclusion that effects of the proposed Amendment are not significant.

Comment 40: One commenter made numerous comments regarding Alternative 3, including: (1) the EA states Alternative 3 will result in continued loss of grassland habitat, which contradicts the 2006 Biological Opinion and annual reports; (2) the EA misrepresents the existing ITP and HCP by incorrectly stating the HCP requires monitoring; (3) the EA does not explain why it concludes the Plan Operator would not conduct habitat management activities for listed butterflies on the Northeast Ridge; (4) that management activities would be restricted to areas that do not support viola in order to avoid take of callippe silverspot butterflies or its habitat; (5) the EA does not define existing development rights; and (6) the EA fails to provide a bases for the statement that the inability of the Plan Operator to conduct vegetation management would result in micro weeds, thatch, and brush invasion.

Response 40-1: Regarding the continued loss of grassland habitat, the HCP's annual monitoring reports reveal that the HCP area lost an estimated 122 acres of grassland to coastal scrub succession between 1981 and 2004, continuing a trend that had

been developing for 50 years when the HCP was finalized (San Mateo County Parks 2007, p. III-2). The 2006 Biological Opinion does not contradict this, in fact it states that approximately 180 acres of grassland habitat within the HCP has succeeded to coastal scrub between 1982 to 2006 (Service 2006, p. 11). The HCP's annual monitoring reports also agree with this conclusion (TRA 2006, p. 22).

Response 40-2: The commenter is incorrect in stating the 1982 HCP and ITP did not require monitoring. Monitoring is discussed and required on page III-19 of the 1982 HCP and provides four "categories of processes and activities that will require monitoring..." The four categories include: (a) mitigation and compliance; (b) population status of endangered species (and other species) including status of habitat resources (i.e., host plants and exotic species encroachment); (c) research on pilot study progress; and (d) Conserved Habitat enhancement programs. The ITP did not specifically address monitoring and the EA does not state that the ITP required monitoring.

Response 40-3 to 40-4: Under Alternative 3 (the no-action alternative), the Plan Operator would be unable to conduct habitat management activities within the Northeast Ridge parcel because the Northeast Ridge is private property and access would be limited to the landowner, as noted in Response to comment 11 above. In addition, any management activities that did occur (i.e., with the permission of the landowner) would be very limited in areas that supported the callippe silverspot butterfly, since incidental take of the callippe silverspot butterfly would not be authorized. Further, vegetation management techniques would not occur in areas that support the callippe silverspot butterfly if those techniques could result in take of the butterfly. Both of these statements

are consistent with the commenter's observation that management activities have occurred in Conserved Habitat without take authorization for callippe silverspot, since Conserved Habitat includes areas that do not support callippe silverspot butterflies, including areas that are not located within the Northeast Ridge.

Response 40-5: Existing development rights, simply refers to the 1989 VTM and associated development approvals for the Northeast Ridge, which are part of the existing HCP, including development in parcels 1-07-01 and 1-07-02.

Response 40-6: The commenter's statement regarding the buildup of weeds, thatch, and brush invasion, follows from their previous statement that vegetation management activities in the Northeast Ridge parcel would be limited under the no-action alternative. As the EA describes on pages 4-31 to 4-32, vegetation management activities are intended to prevent the buildup of weeds and thatch, as well as brush invasion. The commenter is correct the EA did not provide a statement as to why lack of vegetation management would result in the build up of weeds and thatch; this is because it is a common and well known biological principle that grassland ecosystems in California that are not managed become dominated by nonnative invasive grasses, which over time results in the accumulation of a dense layer of thatch.

Comment 41: One commenter stated the EA "admits that human-made elements" are present and detract from the views on the Mountain and that the EA is unclear whether Crocker Park is within the HCP boundaries or not.

Response 41: The commenter is correct that the EA states in Chapter 3 in the

Visual Resources section, that the affected environment includes “human-made-elements” that are notably present and detract from the views of the Mountain. However, the significance of the comment is unclear; these human-made-elements are part of the affected environment, not effects of the proposed Amendment. The Amendment reduces the amount of development already covered under the existing HCP.

Crocker Park is not within the existing HCP boundaries, and the proposed Amendment does not change the HCP’s boundaries. Please see our response to comment 36-4 above for additional information regarding the HCP’s boundaries.

Comment 42: One commenter stated: (1) the EA states the Regional Water Quality Control Board (RWQCB) does not list any water body on the Mountain as impaired on the 2006 Clean Water Act Section 303(d) list, but omits the fact that San Francisco Bay is 303(d) listed; (2) the description of the affected environment was inadequate; and (3) the EA incorrectly states the “existing environmental baseline that provides the baseline for analysis of impacts are to be found in BA Chapter 3 (p. 4-1).”

Response 42-1: Development on the Northeast does not discharge water directly to San Francisco Bay; it discharges to the municipal storm water system of the City of Brisbane. The EA discusses the San Francisco Bay with respect to hydrology and water quality on page 3-5 (Service 2007). Impacts on water quality were discussed in Chapter 4 of the EA (Service 2007, p. 4-17 – 4-19), which are less than impacts discussed in the original EIR/EA (Service 1982, p. III-34 – 36) or the 1989 Addendum (TRA 1989, p. III-83 – 86).

Response 42-1 to 42-2: Please see our response to comment 11 regarding the affected environment and environmental baseline.

Comment 43: One commenter stated the EA does not provide a description of where “special status plant” and wildlife occur on the Mountain, their “concentration or number” which undermines the ability to analyze impacts from the proposed Amendment. In addition, the commenter goes on to say Table 3-3 uses the term “Guadalupe Hills” to describe where the callippe silverspot butterfly occurs but does not describe where this is and does not describe where critical habitat for the Bay checkerspot butterfly is located within the HCP.

Response 43: Tables 3-2 and 3-3 each contain a column describing the occurrence or potential occurrence of each special status species in the HCP study area. The Amendment proposes less development on the Northeast Ridge than has been analyzed by previous environmental documents. Potential effects on special status species that may be affected by the proposed Amendment (i.e., reduced development) are discussed in Chapter 4 (Service 2007).

Guadalupe Hills is the northernmost of the four Planning Areas into which San Bruno Mountain is divided for purposes of the HCP, as described on page VI-3 and identified in Figure VI-1 (page VI-4) of the 1982 HCP. Guadalupe Hills contains the Northeast Ridge parcel as well as approximately 15 other parcels (HCP 1982, p. VIII-2).

The commenter is correct that Table 3-3 in the EA does not describe the location of Bay checkerspot butterfly critical habitat; however critical habitat is depicted on

Figure 3-6 of the EA, titled, “Distribution of Bay Checkerspot Critical Habitat” and does not occur within the Northeast Ridge. At the time the EA was written, critical habitat for the Bay checkerspot butterfly was being revised. The Service finalized revised critical habitat in August 2008, which still does not include the Northeast Ridge. The analysis of impacts to Bay checkerspot butterfly critical habitat in the EA is still accurate.

Comment 44: One commenter stated the EA did “not disclose where the coastal scrub and herbaceous and grass weeds now exist, or in what concentration or number” and that Figure 3-2 is outdated.

Response 44: Figure 15 of the 2007 HMP depicts the location of invasive trees, shrubs, and herbs on San Bruno Mountain (San Mateo County Parks 2007, p. IV-28). As noted in above, the 2007 HMP is included in the EA as Appendix B. As noted in earlier responses, the proposed Amendment will provide a non-wasting endowment to aid in management and monitoring of the HCP. As noted in the 2007 HMP, funding under the current HCP is limited and does not provide sufficient funds to manage vegetation over the entire Mountain on a large scale (San Mateo County Parks 2007, p. 1). Similarly, limited funding in the current HCP does not allow all vegetation types to be surveyed over the entire Mountain area each year. The data presented in Figure 15 is the best and most scientifically available.

Comment 45: One commenter stated the EA “does not describe whether the proposed Amendment proposes to remove representative species of all 3 communities

(chaparral, Northern coastal scrub, and foothill woodland) or which particular plants will be removed.” The commenter also states that while Figure 3-2 shows vegetation on the Mountain it does not use the terms coastal scrub, scrub, chaparral, northern coastal scrub, or foothill woodland and that the description of the Affected Environment in the EA is inadequate.

Response 45: As noted in Response to comment 35, the proposed Amendment does not include actions carried out as part of vegetation management; these actions are existing components of the HCP and its HMP; however, vegetation management activities will include chaparral, Northern coastal scrub, and foothill woodland (San Mateo County Parks 2007).

Comment 46: One commenter stated that the EA does not disclose the species of raptors that occur on the Mountain, which is important due to California state law prohibiting take of raptors and their nests.

Response 46: The EA discusses on pages 4-46 to 4-47 the special-status birds that are present in the vicinity of the proposed Amendment (including raptors), the potential effects on those birds, and the mitigation measures that will be undertaken to mitigate those effects. According to the mitigation measures in the EA (Service 2007, p. 4-47) “If surveys indicate that special-status bird nests are found in any areas that would be directly affected by construction or vegetation management activities, a no-disturbance buffer will be established around the site to avoid disturbance or destruction

of the nest site until after the breeding season or after a qualified wildlife biologist determines that the young have fledged (usually late June to mid-July). The extent of these buffers will be determined by the biologist (coordinating with USFWS) and will depend on the level of noise or construction disturbance, line of sight between the nest and the disturbance, ambient levels of noise and other disturbances, and other topographical or artificial barriers.”

Comment 47: One commenter stated the EA fails to disclose the percentage of mission blue butterflies found on the Mountain, where other colonies have been found in San Mateo County, or that Mission blue butterflies are extirpated from Twin Peaks in San Francisco.

Response 47: The 2007 HMP states the mission blue butterfly is known from several locations in the Golden Gate National Recreation Area (GGNRA) that are protected from development and other disturbances. GGNRA sites supporting the mission blue butterflies include: Milagra Ridge in Pacifica, Sweeney Ridge in San Bruno, and the Marin Headlands in Marin County, lands of Skyline College, as well as other patches of private lands in Pacifica and San Bruno where its larval host plant occurs (San Mateo County Parks 2007, p. IV-13).

Regarding the presence of mission blue butterflies at Twin Peaks, the commenter is incorrect, as the EA notes on page 3-8, as well as the 2007 HMP, Twin Peaks still supports a small population of mission blue butterflies (San Mateo County Parks 2007, p. IV-30). The San Francisco Natural Resource program has been monitoring the mission

blue butterfly population at Twin Peaks since the mid-1990s. Survey information from San Francisco Recreation and Park Department (SFRPD) has observed eggs, larvae, or adults at Twin Peaks annually from 2001-2007 (2007 is the last year of available survey data). As noted in the 2007 HMP, mission blue butterflies (as well as callippe silverspot butterflies and San Bruno elfins) are highly unlikely to be successfully immigrating to or emigrating from other populations located outside of the Mountain due to heavy urbanization surrounding the Mountain (San Mateo County Parks 2007, p. IV-13). The Amendment would not affect mission blue butterfly populations off San Bruno Mountain including those at Twin Peaks. The final analysis of the affects of the proposed Amendment on federally listed species (including whether it jeopardizes their continued existence) will be made in the Services' biological opinion.

It is believed that San Bruno Mountain supports the largest population of mission blue butterflies, followed by the Marin Headlands and Milagra Ridge. TRA estimates that the proportional population distribution is as follows: San Bruno Mountain 50%, Marin Headlands 30%, Milagra Ridge 10%, all others combined 10%.

Comment 48: One commenter made several comments regarding vegetation removal and impacts to mission blue butterfly and San Bruno elfin including the following: (1) why does the EA state the Amendment intends to eliminate coastal chaparral and coastal grasslands where mission blue butterfly colonies are found; (2) does the Amendment propose to eliminate plant species the mission blue butterfly uses for nectaring (i.e., feeding); and (3) the EA is unclear if the study area is the Northeast Ridge.

Response 48-1: As noted above the proposed Amendment does not include vegetation management. Vegetation management is an existing component of the HCP and the Amendment only proposes to increase funding in order to enhance implementation of the HMP. However, the vegetation management program discusses control of coastal scrub (not coastal chaparral or coastal grassland), which encroaches on and replaces coastal grassland habitat, which is where the mission blue and callippe silverspot butterfly habitat is found.

Response 48-2: Mission blue butterflies opportunistically nectar (i.e., feed) on a variety of native and non-native plant species. The EA does not attempt to provide an exhaustive list of every plant species adult mission blue butterflies utilize for nectar. However, as noted in the EA some nectar sources include golden aster (*Chrysopsis villosa*), blue-dicks (*Brodiaea pulchella*), (*Brodiaea taxa*), and buckwheat (*Eriogonum latifolium*) (Service 2007, 3-8). The 2007 HMP also notes mission blue butterflies use a variety of nectar sources, especially thistles (San Mateo County Parks 2007, p. IV-13). While vegetation management actions will undoubtedly remove individual nectar plants, most nectar plants are widespread throughout the Mountain in the grassland areas that support the mission blue. However, as noted in the EA, vegetation management is expected to improve habitat conditions for numerous species, including mission blue butterflies (Service 2007, p. IV-44 – 45). In addition, many of the nectar plants can be readily restored in disturbed habitat.

Response 48-3: The study area is the entire Mountain, and the San Bruno elfin is found on woody north-facing slopes where its host plant (*Sedum spathulifolium*) occurs. There are no known occurrences of *Sedum* on the Northeast Ridge.

Comment 49: One commenter stated: (1) the Figure 3-3 claims to show the distribution of callippe silverspot butterflies, but only shows its habitat and is outdated; and (2) information regarding distribution of viola in the EA is inconsistent and suspect because Figure 3-4 shows distribution of viola north of Guadalupe Canyon Parkway in 2005, while Figure 3-5 shows no viola in the same area and the north end of the Northeast Ridge has been excluded.

Response 49-1: The title of Figure 3-3 is “Distribution of callippe silverspot butterfly habitat, 2004.” Callippe silverspot distribution is depicted on Figure 6 of the 2007 HMP (San Mateo County Parks 2007, p. IV-15). Regarding Figure 3-3 being outdated, please see our response to comment 44 above.

Response 49-2: The Northeast Ridge parcel does not include the area north of Guadalupe Canyon Parkway or the “excluded” area identified in the comment as “the north end” of the Northeast Ridge. Viola that exist north of Guadalupe Canyon Parkway are not shown on Figure 3-5, because the figure only depicts viola distribution only on the Northeast Ridge. The area the commenter refers to as “excluded” is parcel 1-08 and is not part of the Northeast Ridge (HCP 1982, p. S-2, VI-4; Service 2007, Figure 2-1); therefore, nothing has been excluded from Figure 3-5.

Comment 50: One commenter stated that the EA states callippe silverspot butterfly nectar plants include coyote mint (*Monardella villosa*) and pincushion plant (*Scabiosa atropurpurea*), but does not state where they are located or in what abundance.

Response 50: Similar to our response to comment 48-2 regarding mission blue butterfly nectar sources, the EA did not attempt to provide an exhaustive list of nectar sources for the callippe silverspot butterfly. The callippe silverspot is not restricted to nectaring on coyote mint and pincushion plants. The EA states “the callippe silverspot will utilize a variety of nectar plants, so long as the presence of a variety of suitable and abundant nectar plants are located in the same area as their host plant (the violet) (Service 2007, p. 3-11). Therefore the distribution of nectar plants used by the callippe silverspot butterfly includes areas throughout the grasslands and shrublands depicted in Figure 3-2 of the EA.

Comment 51: One commenter stated that the majority of natural areas on the Mountain have been preserved and will remain undeveloped in perpetuity, but does not disclose what portion of callippe silverspot butterfly that have been preserved.

Response 51: The commenter is correct that the EA does not state the amount of habitat for each species that has been preserved and protected in perpetuity; however, Figure 1-3 in the EA depicts the area developed under the HCP (308 acres), unplanned areas (276 acres), graded/restored area (81 acres), and amount of conserved habitat (2,828 acres). From Figure 1-3, the reader can calculate the portion of habitat that has been protected under the HCP, which is approximately 80% and represents the “majority” of natural areas on the Mountain.

Comment 52: One commenter stated that in the list of threats to the callippe silverspot butterfly, the EA fails to inform the public and decision makers of threats from urban development and habitat fragmentation as identified in the listing rule for the callippe silverspot butterfly.

Response 52: The threats associated with habitat fragmentation were addressed in the EA on pages 4-38 to 4-40 (Service 2007). Threats associated with urban development are addressed throughout the analysis of impacts to callippe silverspot butterflies on pages 4-30 to 4-42. The Service is the decision maker, and therefore is already in possession of this information.

Comment 53: One commenter stated the EA's description of callippe silverspot butterfly habitat is limited to a single paragraph, which does not accurately or fully describe the species on the Mountain, and "Guadalupe Hills" (one of two colonies on the Mountain) is not identified.

Response 53: The term "Guadalupe Hills" used on page 3-12 of the EA is a typographic error. The correct term is "Guadalupe Hills" which refers to the population of callippe silverspot butterflies northeast of the Crocker Industrial Park, and the eastern portion of the Saddle area of the State Park Area north of Guadalupe Canyon Parkway and west of Carter Street (refer to EA Figure 3-4). The Southeast Ridge colony is found south of the Crocker Industrial Park all along the southeast ridge as shown in EA Figure 3-4. Information on callippe silverspot distribution and habitat on San Bruno Mountain is

found in the EA (Service 2007, Figures 3-4, 3-5), in the 2007 HMP (San Mateo County Parks 2007, Figure 6), and Biological Study (TRA 2007, p. 65). The study area is the whole Mountain that is under the jurisdiction of the HCP.

Comment 54: One commenter asked what the basis of the statement that callippe silverspot butterflies “regularly disperse” between the two population centers on the Mountain, which is contradicted by other statements in the EA and published reported.

Response 54: Please see our response to comment 20 above for a discussion of callippe silverspot butterfly movement between the population centers on the Mountain.

Comment 55: One commenter stated that the EA did not disclose the location of Bay checkerspot butterfly larval host plants.

Response 55: The EA depicts Bay checkerspot butterfly critical habitat on Figure 3-6. Critical habitat is comprised of Primary Constituent Elements (PCEs) pursuant to 50 CFR 424.12 and include: “(1) Space for individual and population growth and for normal behavior; (2) Food, water, air, light, minerals, or other nutritional or physiological requirements; (3) Cover or shelter; (4) Sites for breeding, reproduction, and rearing (or development) of offspring; and (5) Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.” Since PCE 2 for Bay checkerspot butterfly Critical Habitat includes “the presence of the primary larval host plant, dwarf plantain (*Plantago erecta*),

and at least one of the secondary host plants, purple owl's-clover (*Castilleja densiflora*) or exserted paintbrush (*Castilleja exserta*)..." the Service believes Figure 3-6 is sufficient for determining the location of the Bay checkerspot butterfly's larval host plants.

Comment 56: One commenter stated Figure 3-5 is three years old and is inaccurate since it excludes Court B and Golden Aster Court from the development area.

Response 56: The data regarding viola distribution is the most recent available. Moreover, the distribution of viola varies from year to year. For purposes of assessing potential impacts to viola habitat from development, the EA provides an average in addition to the upper and lower estimates (Service 2007, p. 4-31). Please see our response to comment 39 above for a discussion on Court B and Golden Aster Court.

Comment 57: One commenter stated the EA did not describe the existing wastewater charge, traffic volume, Level of Service for Guadalupe Canyon Parkway, or other roads in the vicinity of the project, or the current population of the City of Brisbane.

Response 57: The existing environment, as it relates to the proposed Amendment, is described in Chapter 3 of the EA, including hydrology and water quality (Service 2007, p. 3-4 – 3-6). Information on traffic volume and Level of Service is provided in the 2007 Addendum to the EIR for the Northeast Ridge project.

The commenter is correct that the EA did not provide a population estimate for the City of Brisbane. The EA provides population data for the County of San Mateo,

because the Mountain is boarded by more than just the City of Brisbane and population estimates for the County were considered more relevant to the EA.

Comment 58: One commenter stated the EA does not note the biological study for any assessment of the affected environment, which indicates the document entitled “Biological Study” does not perform the function intended by the IA or that previous biological studies have performed.

Response 58: Please see our response to comment 3 above.

Comment 59: One commenter stated the EA does not state who the “Plan Operator” is or which entities are responsible for which mitigations.

Response 59: The commenter is correct that the EA does not define “Plan Operator.” However, Plan Operator was defined in the original HCP as the County of San Mateo (HCP 1982, p. G-6) and was incorporated by reference into the proposed Amendment and EA. The Revised Operating Program for the Northeast Ridge, found in the Biological Study, explains the responsibilities for mitigation (TRA 2007, p. A-6 -10).

Comment 60: One commenter stated: (1) the EA does not analyze the entire project, including impacts of development of the Northeast Ridge and the proposed vegetation management as a whole under Alternative 1; (2) Alternative 1 does not state which parts of the Mountain would be affected; (3) the EA leaves the reader with the

impression that only 19.64 acres will be affected and does not take into account development at Court B and Golden Aster Court; and (4) the EA fails to adequately explain the basis for its conclusions.

Response 60-1: As noted above, the vegetation management plan is not part of the proposed Amendment. However, the EA, in evaluating Alternative 1, discusses the *changes* in vegetation management (e.g., use of enhanced management techniques in areas of butterfly habitat) that will be made possible by the proposed Amendment (specifically from increased funding and the addition of the callippe silverspot butterfly to the ITP), which are included throughout Chapter 4 under the heading, “Management and Monitoring of Conserved Habitat.”

Response 60-2: Regarding which parts of the Mountain would be affected, incidental take of the callippe silverspot and Bay checkerspot butterflies would be anywhere within the boundaries of the HCP, since vegetation management actions occur across the entire Mountain. Development under the 2007 VTM would only occur on the Northeast Ridge.

Response 60-3: Regarding Court B and Golden Aster Court, please see our response to comment 39 above.

Response 60-4: The EA summarized the basis of its conclusion on page 5-8, including the following: “Alternative 1 would provide for a greater level of conservation for the listed butterflies, including expanded habitat management to enhance grasslands that contain host plants for the callippe silverspot (Service 2007).”

Comment 61: One commenter made the following comments regarding impacts: (1) the EA did not state how it reasoned that impacts to visual resources would not be significant; (2) the EA improperly analyzes impacts by solely comparing impacts from Alternative 1 to those of Alternative 2 rather than to the existing environment; (3) the EA stated the proposed changes would result in a total increase of 4.97 acres of permanently disturbed area at the UII-NII site compared to the 1989 VTM; (4) the EA concluded that visual impacts from vegetation management would be insignificant because they would be temporary and irregular, but “under NEPA short term or temporary impacts are not per se insignificant as the EA posits;” (5) regarding “more expansive visual resource impacts...and a variety of light and glare,” the EA does not state “what the impacts would be or whether these impacts would be significant;” (6) the EA does not adequately discuss mitigation and concludes impacts to visual resources would not be significant solely because of mitigation measures in the 1982 EIR/EA, but does not disclose what those mitigation measures are or why they would reduce impacts; (7) mitigations in Table 4-1 are not incorporated into the obligations imposed by the HCP or ITP; (8) no explanation of how design review would mitigate impacts; (9) the EA is contradictory regarding impacts to visual character as a result of vegetation management; (10) the EA’s discussion of impacts of Alternative 1 and 2 ignores development at Court B and Golden Aster; and (11) the EA “in discussing substantial light or glare states the number of homes within UII-NII would increase by 11 units with the 2007 VTM, but does not state as compared to what.”

Response 61-1: The EA’s analysis of the impacts explains the basis for its

conclusion that impacts to visual resources would not be significant on pages 4-4 to 4-7 (Service 2007), which includes mitigation measures identified in the 1989 addendum (TRA 1989, p. III-37, IV-3) to the 1982 EIR/EA. In addition, the proposed Amendment reduces the amount of development on the Northeast Ridge compared to the level of impact analyzed in the existing HCP and previous environmental documents.

Response 61-2: Please see our response to comment 11 above regarding use of an “environmental baseline.”

Response 61-3: The commenter is correct that the EA stated “[t]he proposed changes would result in a total increase of 4.97 acres of permanently disturbed area at the UII-NII site compared to the 1989 VTM (Service, 2007, p. 4-4).

Response 61-4: The EA was not meant to imply that all temporary or irregular impacts are insignificant simply because they are temporary or irregular. The EA explains that the impacts in question would be temporary, irregular, and limited in physical scope, and that based on all these factors, it concludes that the impacts are not significant (Service 2007, p. 4-4). In addition, management activities such as clearing of vegetation are performed over time, with only a few acres treated each year, to minimize the scale of visual impacts (Service 1982, p. III-24, III-45).

Response 61-5: The visual resources impacts of Alternative 2 would be of the same types associated with construction of homes under Alternative 1 (Service 2007, p. 4-4, 4-6), including: changes in scenic views due to urbanization of undeveloped land and diminished views of open space, and light and glare due to reflective building materials, windows and night lighting. However, impacts would be more expansive under Alternative 2, because it results in more homes constructed and more undeveloped land

impacted, than under Alternative 1 or 3.

Response 61-6: Regarding mitigation, the EA does not rely solely on mitigation measures to conclude that impacts are not significant; the EA merely takes the mitigation measures in the 1982 EIR/EA into account in reaching its conclusion. The mitigation measures for visual impacts that are included in the 1982 EIR/EA, are summarized in Table 4-1 (Service 2007); however, Table 4-1 characterizes them as mitigation for impacts to “aesthetics,” rather than impacts to “visual resources,” as they are described in the text of the EA. The mitigation measures for aesthetic impacts described in the 1982 EIR/EA include avoidance of buildings on hilltops, height restrictions on buildings, landscaping guidelines, and detailed design review under the City's zoning codes.

Response 61-7: The 1982 HCP's mitigation measures are required and are discussed in the IA, which is part of the public record, available at the Service's Sacramento Fish and Wildlife Office.

Response 61-8: Design review addresses such issues as placement of building complexes, visibility of buildings from nearby locations, and overall visual impact of the development (Service 1982, p. III-25 – 29).

Response 61-9: Regarding contradictory impacts from vegetation management on visual resources, the language on page 4-4 of the EA with impacts to scenic vistas, while the language on page 4-5 of the EA with the overall visual character of the project site and its surroundings. The statement that spot removal of vegetation could have a temporary and “potentially annoying” effect on the scenic vistas of a few nearby residents is consistent with the conclusion that such activity will not have a significant noticeable effect on the overall visual character of the project surroundings.

Response 61-10: The construction of 17 homes included in Golden Aster Court and B Court has already occurred and is not part of Alternative 1 (the proposed Amendment) or Alternative 2. Please see our response to comment 39 above. While not part of the proposed Amendment, the effects of the activities are considered in the EA. Ground-disturbing effects related to construction of these units are analyzed throughout Chapter 4, where appropriate, in order to ensure that all impacts to callippe silverspot butterfly habitat are accounted for (Service 2007, p. 4-17) (discussing potential surface runoff and erosion associated with the 2007 Infrastructure Grading), which is not an issue with effects such as light and glare.

Response 61-11: The increase in dwelling units within the area known as Unit II-Neighborhood II is related to the reconfiguration of the Northeast Ridge development under the 2007 VTM. Please see our response to comment 39 above. The comparison is to the number of units under the 1989 VTM. The increase from light and glare resulting from 11 new homes in UII-NII is compared to Alternative 2, the 1989 VTM. The EA states that 71 new homes would be constructed under Alternative 1 (as compared to the Alternative 3) and the following sentence states Alternative 1 would increase the number of homes in UII-NII by 11 units under the 2007 VTM, which implies the 11 units are compared to the number of units in UII-NII under the 1989 VTM.

Comment 62: One commenter made the following comments regarding air impacts: (1) the EA omits discussion whether Alternative 1 or 2 will conflict with or obstruct implementation of the applicable air quality plan (a EA stated air significance criteria); (2) it is unclear if the EA analyzed impacts to air quality from fire and herbicide

spraying under Alternative 1; (3) the EA doesn't adequately discuss the impact of air pollution on weed growth and displacing host plants; (4) EA doesn't state the mitigation measures being implemented to reduce air impacts; (5) no discussion why proper fuel preparation and limiting burns to "burn days" would mitigate air impacts; (6) the EA doesn't state if activities under Alternative 1 and 2 that contribute to air pollutant will be significant before mitigation; and (7) the EA states housing units under Alternative 2 would generate traffic, but does not discuss these contributions for Alternative 1.

Response 62-1: The EA states on pages 4-7 and 4-8, that Alternatives 1 and 2 respectively, "would not conflict with implementation of an applicable air quality plan." These plans are consistent with the City of Brisbane's General Plan, which is incorporated into the BAAQMD's plan. The EA discusses potential contributions to violations of air quality standards on pages 4-8 to 4-9.

Response 62-2: The EA analyzes fire with respect to Alternative 1 at page 4-8 to 4-9. Herbicide spraying is addressed under the analysis of hazardous materials at pages 4-21 to 4-24. "Weed growth displacing host plants" is not part of the proposed Amendment, but the effects of the spread of non-native herbaceous species are addressed on pages 4-27 to 4-29.

Response 62-3: As stated on page 5-3 of the EA, nitrogen deposition (which results from air pollution) represents a significant threat to native grassland habitat. Non-native vegetation gains a competitive advantage over native species. Non-native vegetation that displaces native species, including the host and nectar plants of the listed butterflies on the Mountain, which results in a decline in butterfly numbers. This is one

reason that enhanced vegetation management provided by increased funding through the Amendment will improve habitat conditions on the Mountain and is expected to reverse the gradual loss of grassland habitat that has occurred during the life of the HCP.

Response 62-4: With regard to the air quality mitigation measures found in the 1982 EIR/EA, they are summarized in Table 4-1 (Service 2007) as “proper fuel preparation and limiting burns to burn days.” These measures are not designed to mitigate impacts from painting or vehicular traffic, but for construction grading. In addition, the EA states additional measures include adherence to the City of Brisbane’s Grading Ordinance provisions for dust control and conformance to BAAQMD recommended dust control measures. These combined measures decrease the potential air quality impacts to lower than those previously analyzed in the 1982 EIR/EA (Service 1982, p. III-37) or 1989 Addendum (TRA 1989b, p. III-89), which were not determined to be significant.

Response 62-5: With regard to pollutants emitted from prescribed burns (i.e., planned fires), the EA does state they have the potential to “violate the BAAQMD’s air quality standards” (Service 2007, p. 4-9); however, the EA goes on to state that the Plan Operator would comply with BAAQMD regulations including the preparation of a smoke management plan, proper fuel preparation and limiting burns to “burn days” and that these factors combined with mitigation measures in the 1982 EIR/EA reduce this impact to not significant (Service 2007, p. 4-9). The location of the school in proximity to the Northeast Ridge development site does not affect the determination that impacts to air quality from prescribed burns is significant. While, Management and Monitoring will include prescribed burns, they are not proposed to occur on the Northeast Ridge.

Response 62-6: The EA is not required to make a significance determination for every potential contributing factor to an environmental impact. Nor does NEPA require an analysis of each potential impact in the absence of mitigation. NEPA requires an analysis of the net impact of the project on each aspect of the environment evaluated for significance, taking into account mitigation measures that are integral to the proposed Amendment. *Friends of Endangered Species v. Jantzen*, 760 F.2d 976, 987 (9th Cir. 1985); *Preservation Coalition, Inc. v. Pierce*, 667 F.2d 851 (9th Cir. 1982); *Cabinet Mountains Wilderness v. Peterson*, 685 F.2d 678, 682 (D.C. Cir. 1982).

The EA address vehicular traffic and secondary source contributions to air quality impacts for Alternative 1 (Service 2007, p. 8-4). In addition, the EA notes on page 4-8 that these impacts will be reduced under Alternative 1, compared to the development authorized under the existing HCP and 1989 VTM and analyzed in Alternative 2 in the EA. The fact that Alternative 2 impacts were already analyzed and found to be not significant, in the 1989 Addendum to the 1982 EIR/EA, provides additional support for the conclusion that the impacts of Alternative 1 are not significant.

The EA's conclusion that the proposed Amendment would not expose sensitive receptors to substantial air pollutant concentrations is informed by the analysis of air quality impacts on pages 4-7 through 4-9. In addition, simply because an alternative may contribute to air quality emissions does not inherently mean the alternative will expose nearby sensitive receptors to high concentrations of pollutants.

Comment 63: One commenter made the following comments regarding geology, seismicity, and soils: (1) the EA is contradictory; it states that people or structures would

not be exposed to strong seismic shaking, landslides, or substantial soil erosion, but later admits that each of these are likely to occur and the EA does not explain why these impacts are not significant or why they are not significant prior to mitigation; (2) the EA relies on the mitigations in the 1982 EIR/EA to reach the conclusion that impacts are not significant, but only one mitigation measure (erosion control) for geology is listed in Table 4-1, which doesn't state what erosion control measures would be utilized; (3) there is no discussion of the enlarged footprint on callippe silverspot or mission blue butterfly habitat or their host plants resulting from removal of "any weak, potentially unstable colluvial materials;" (4) the 1.07 acres of infrastructure grading did not stabilize steep slopes near Unit 1, but instead created a depression and steep slopes, and the location of the 1.07 acres was not identified; (5) the EA defers formulation of the mitigation for landslide impacts; (6) mitigations in the 1982 EIR/EA and 1989 Addendum are inadequate because the 2007 VTM results in dwellings closer to the steep hillsides; and (7) the EA provides no explanation of why 80 new homes under Alternative 2 would result in more extensive geology and soil impacts.

Response 63-1: The EA does not state that people or structures would not be exposed to seismic shaking or landslides. It states that the proposed Amendment would not "[e]xpose people or structures to *potential substantial adverse effects*" involving seismic shaking, landslides, etc. (Service 2007, p. 4-11). The potential for seismic shaking, landslides, etc., does exist at the Northeast Ridge site, as it does throughout San Mateo County due to the San Andreas Fault; however, appropriate steps have been taken to ensure that significant adverse effects do not occur as a result of these possibilities.

For example, structures will be constructed in accordance with state (California State Building Code Title 24) and local building codes that require measures to reduce impacts from potential seismic events (Service 2007, p. 4-11).

Regarding the significance of impacts before mitigation, please see our response to comment 62-6 above.

Response 63-2: The mitigation measures included in the 1982 EIR/EA include measures related to the design and construction of cut-and-fill slopes and protection of graded areas from heavy rainfall and off-road vehicle traffic. They also include implementation of design measures to reduce the chances of structural and slope failure during an earthquake (Service 2007, Table 4-1 page 3). These measures are in addition to the incorporation of erosion control measures referred to by the commenter. However, the EA does not rely solely on these mitigation measures to make its determination; it also discusses other mitigation measures, such as compliance with seismic standards in state and local building codes, use of catchment walls, and stabilization of steep slopes near development (Service 2007, p. 4-11, 4-13).

Response 63-3: The removal of unstable soils would not enlarge the project footprint or increase impacts to butterflies or their habitat. The area in which soil would be removed would have already been disturbed by construction (and has been included in those impacts) and would be revegetated after construction is complete (as required by the HCP), regardless of whether unstable soil is removed during grading.

Response 63-4: The 1.07 acres area in question was part of the 2007 Infrastructure Grading that occurred north of Unit I. The area is shown on Figure 3 of the Biological Study (TRA 2007, p. 53) and described on page 2-3 to 2-4 of the EA. The

ground disturbance associated with the 1.07 acres is not part of the proposed Amendment; however, in an effort to be as conservative as possible, the EA analyzed impacts associated with the 1.07 acres. As noted in the EA (Service 2007, p. 2-4), the 2007 grading included slope stabilization measures needed for public health, safety, and welfare reasons. The Service is not aware of any information indicating the stabilization measures resulted in steeper less stable slopes as the commenter suggests.

Response 63-5: The EA does not defer formulation of the mitigation for potential landslide impacts. The EA states that steep slopes near Unit I have already been stabilized, and any weak, unstable materials encountered during project grading will be removed (Service 2007, p. 4-13). In addition, the EA states that the 2007 VTM includes debris catchment walls around the perimeter of the project site to protect the development area from debris flows. As discussed in the response to Comment 30, the final design of the catchment walls is subject to review by the City. Finally, all final grading and improvement plans are subject to review by the City and are assessed for compliance with the latest building codes, including seismic and geotechnical standards.

Response 63-6: Regarding the comment that the 1982 and 1989 mitigation measures are inadequate for the 2007 VTM, because the 2007 VTM is for a “different project closer to the steep hillsides,” the steepest slope on the project site is located at the eastern edge of the development area. As shown on Figure 2-4 of the EA, the easterly boundary of the development area is almost exactly the same under both the 1989 VTM and the 2007 VTM. The distance from the steep eastern slopes was maintained under the 2007 VTM both to avoid instability and erosion concerns and to minimize additional impacts to what the Service considers to be high-value callippe silverspot butterfly

habitat in this area. In addition, the 2007 VTM actually adjusts the development area farther away from the existing slide area located to the west. Finally, the 2007 VTM results in reduced grading area and grading cubic yardage compared to the 1989 VTM.

Response 63-7: The construction of 80 additional units (under Alternative 2) would result in more extensive geology and soils impacts because it requires more grading. Likewise, reducing the development and grading area by 8.93 acres (under Alternative 1) will reduce the potential for soil erosion or topsoil loss, as the EA states, especially given that the 2007 VTM actually moves the project away from the steepest and most unstable slopes on the project site, as discussed in the previous paragraph.

Comment 64: One commenter made the following comments regarding hydrology and water quality: (1) the EA does not discuss whether impacts to water quality and hydrology under Alternative 1 or 2 are significant prior to mitigation; (2) the EA “improperly treats its conclusion that Alternative 1 impacts are less than Alternative 2 impacts as a mitigating factor;” (3) the EA states there are potential impacts to water quality from fuel spills, but omits this from the discussion of water quality; (4) there is no discussion of why reliance on the 1982 and 1989 mitigation would cause the impacts to be not significant; (5) there is no discussion of how the mitigation of preventing accidental release of hazardous pesticides can be ‘ensured;’ and (6) the mitigations in Table 4-1 do not deal with impacts to water quality, flooding, or drainage and they constitute impermissible deferral of mitigation formulation.

Response 64-1 to 64-2: Regarding significance before mitigation, please see our

response to comment 62 above. Regarding the comparison of Alternative 1 impacts to Alternative 2 impacts, please see our response to comment 61 above.

Response 64-4: The EA states in Section 5.3 (Cumulative effects) that the project has the potential to contribute to cumulative water quality impacts from fuel spills associated with residential construction, but that this possibility will be mitigated through compliance with National Pollutant Discharge Elimination System (NPDES) construction storm water permits (Service 2007, p. 5-4).

Response 64-4: Regarding mitigation measures from the 1982 EIR/EA and 1989 Addendum, the developer of the Northeast Ridge is required to comply with the City's storm water management controls and with the State Water Resources Control Board's Construction General Permit (Order No. 99-08-DWQ, as subsequently amended or replaced). These regulations require that erosion and sediment controls be implemented and monitored to ensure their effectiveness.

Response 64-5: Regarding accidental release of pesticides, note that use of pesticides (i.e., insecticides, rodenticides, and fungicides) are prohibited within Conserved Habitat under the existing HCP. Even within development areas, no large-scale application of pesticides, or use of pesticides requiring government permits, or aerial application of pesticides, is allowed without written approval by the Plan Operator (HCP 1982, p. III-34). Limited herbicide use within Conserved Habitat may be implemented in select locations if it is not likely to result in incidental take of listed species and is used in accordance with the label. The 2007 HMP states "[o]nly spot treatment applications are done, and no broadcast application is conducted" (San Mateo County Parks 2007, p. V-6). The Operating Program for the Northeast Ridge parcel

requires the landowner to establish covenants and restrictions encumbering the Development Area to enforce these restrictions on pesticide use (HCP 1982, p. VII-59).

Response 64-6: The EA does not defer formulation of the mitigation for impacts to hydrology (including water quality, flooding, etc.). The mitigation measures listed in Table 4-1 (p. 2, 4) apply to all impacts to water resources including water quality, flooding, and drainage. The EA determined the impacts were not significant based on the context and intensity of the impacts (40 CFR 1508.27) in conjunction with the mitigation measures included for hydrology in the 1982 EIR/EA and 1989 Addendum.

Comment 65: One commenter made the following comments regarding hazardous materials: (1) the EA does not discuss the impact of pesticides under biological impacts; (2) why is the release of herbicides, pesticides, and fungicides not a significant hazard; (3) the EA states “that the Plan Operator would take precautions to ensure tha[t] no accidental releases occur during implementation of management techniques, but the previous sentence is not based on accidents, thus the mitigation is ineffective; (4) there is no discussion of why reliance on the 1982 mitigations would cause the impact to not be significant; (5) the 1982 mitigation measures do not include measures for release of hazardous material or effects of pesticides on callippe silverspot butterfly; (6) the EA states that to minimize potential effects, no spraying would take place near known habitat, but the provision is not in the HCP operating program as amended; (7) the EA does not disclose where the known habitat of the three butterfly species is compared to where pesticides will be used; (8) the proposed mitigation for butterflies and people does not account for the fact that a school is located 0.3 miles away; and (9) the fact that a

program involves use of substances registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) does not exempt the program from the requirements of NEPA.

Response 65-1 to 65-3: Pesticide use (insecticides, rodenticides, and fungicides) is not allowed in Conserved Habitat under the existing HCP and the proposed Amendment does not alter this restriction. Therefore, no releases of these substances in Conserved Habitat are expected. The HMP is a component of the existing HCP and is not part of the proposed Amendment, nor is the use of herbicides. As noted in the EA on page 4-41, the Amendment will not include incidental take of listed species resulting from herbicide application. The possibility of accidental release of herbicides is addressed by the precautions on page 4-22 of the EA.

Since herbicide use is part of the HMP, the risks associated with the intentional release of herbicides (i.e., under the HMP) are addressed at page 4-23 of the EA, which includes new Mitigation Measure 1; this new measures provides the precautions that will be taken to avoid adverse affects on listed butterflies by avoiding their host plants, prevent herbicide drift, etc. In addition, we note that expansion of vegetation management activities does not necessarily entail increased use of herbicides; see response to comment 30-2.

Response 65-4: The commenter's reference to the 1982 mitigations is in error, as the 1982 EA/EIR does not include specific mitigation measures for herbicide use as part of the management program. However, the 1982 EA/EIR recognizes that the HCP is designed to provide mitigation for impacts caused by both development and conservation

activities (Service 1982; p. III-15). Taken as a whole, these measures will insure that no significant effects occur due to accidental release of hazardous materials.

Response 65-5 to 65-6: Regarding minimization by not spraying near known habitat, the commenter is correct that the provision is not in the existing HCP operating program; however, as noted on page 4-33 of the EA, new Mitigation Measure 1 is being incorporated into the HCP, which will become binding if the Service authorizes the proposed Amendment. In addition, the Service can include these measures in the terms and conditions on the amended ITP.

Response 65-7: The location of invasive species and priority management areas are depicted on Figures 1-24 of the 2007 HMP (San Mateo County Parks 2007 p. B-3 – B44). Mission blue and callippe silverspot butterfly distributions are depicted on Figure 6 of the 2007 HMP (San Mateo County Parks 2007, p. IV-15), while San Bruno elfin distribution is depicted on Figure 8 (San Mateo County Parks 2007, p. IV-19). The Bay checkerspot butterfly is currently extirpated from the Mountain, but critical habitat for the Bay checkerspot is depicted on Figure 9 (San Mateo County Parks 2007, p. IV-20). Pesticide use in Conserved Habitat is not allowed under the existing HCP or the proposed Amendment.

Response 65-8: The existing school is 0.3 miles from the project site, and is not within 0.25 miles of the project site. The mitigation measures states that no spraying or hazardous emissions will occur within 0.25 miles of an existing or proposed school. Regarding herbicide drift, the EA contains measures to minimize the risk of herbicide drift that apply even when wind speed is less than 10 miles per hour. Please see our response to comment 105-3 below for additional information.

Response 65-9: The commenter's statement of law is noted. For additional information regarding pesticides, please see our response to comment 64-5 above.

Comment 66: One commenter made the following comments regarding biological impacts: (1) the discussion of biological methodology and significance criteria is inadequate; (2) there is no discussion of the methodology used to make determinations; (3) the EA does not explain what the significance criteria is for evaluating biological impacts; (4) the EA's "methodology and significance criteria presents conclusions regarding impacts, but neither methodology or significance criteria for evaluating impacts;" (5) there is no significance criteria presented for each of the issue headings (i.e., destruction of viola habitat); (6) the EA does not state what management strategies would improve habitat conditions for the callippe silverspot and Bay checkerspot butterflies or how they would improve conditions; (7) the EA does not explain why impacts associated with management strategies are temporary or why such temporary impacts are not significant; (8) the EA does not identify what "creation activities" are; (9) the EA fails to analyze if there will be significant impacts to listed endangered species; (10) the analysis of significance must proceed discussion of mitigations, but the EA has blended them avoiding a full analysis of either; and (11) the EA fails to analyze significance utilizing the ESA 'recovery in the wild' standard.

Response 66-1 to 66-5: Under NEPA, unlike the California Environmental Quality Act ("CEQA"), rigid or quantitative "significance criteria" are not used, nor is a specific methodology for analysis required. Instead, the reviewing agency must exercise

its discretion in analyzing the available information to determine whether environmental effects of the proposed Amendment will be significant. The EA's discussion of "Methodology and Significance Criteria" on page 4-24 simply explains some of the sources of potential effects on biological resources and outlines the considerations that were employed in assessing the significance of those potential effects.

Response 66-6: The uses and benefits of various habitat management activities for butterfly host plants are explained in the EA on pages 2-9 to 2-12 and, in greater detail, in the 2007 HMP, included in the EA as Appendix B. Please see also see our response to comments 14 and 18 above.

Response 66-7: Adverse impacts from habitat management activities are temporary, because the activity is of limited duration (e.g., disturbance from increased human presence as part of monitoring), and vegetation will naturally reestablish following the activity (e.g., burning). In addition, vegetation management actions will not be carried out simultaneously across the entire Mountain, but spread out over multiple years and in different locations. The scope and intensity of management activities in a given year would be small relative to the entire HCP area. Also, although vegetation management activities may have some minor adverse impacts to listed butterflies (i.e., some individuals maybe stepped on or host plants maybe burnt) it is expected that management will greatly improve the quality of habitat on the Mountain. The mitigation measures in Table 4-1 would be followed. For these reasons the EA concluded adverse impacts from management activities would not be significant.

Response 66-8: Creation activities refer to establishment of a specific type of habitat in areas where it did not previously exist.

Response 66-9: The EA does analyze impacts to special status species (i.e., plants, birds, amphibians, and other special status butterflies) as well as federally listed butterflies (Service 2007, p. 4-29 – 4-48).

Please see our response to comment 62-6 above regarding the propriety of considering mitigation measures in making significance determinations.

NEPA does not required the utilization of the “recovery in the wild” standard under the ESA in analyzing significance (40 CFR § 1508.27(b)(9)).

Comment 67: One commenter made the following comments regarding destruction of annual grassland habitat: (1) acreage on page 4-25 of the EA is different than elsewhere in the EA; (2) the 1.07 acres of “infrastructure grading” represents building of Court B and Golden Aster Court; (3) Table 4-3 includes the 1.07 acres as part of the baseline conditions, but its part of the proposed project; (4) the EA incorrectly refers to 2.97 acres as temporary disturbance, because dedication of this area “as Conserved Habitat doesn’t bring back the Callippe or Viola Pedunculata;” (5) the EA does not disclose the type of habitat in the remaining 4.66 acres; (6) there is no discussion of why grassland habitat is “the appropriate lens to analyze significant impacts to listed butterflies or their host plants;” (7) the EA improperly analyses impacts to grassland habitat by comparing Alternative 1 to Alternative 2; (8) the EA provides no explanation of why the 1982 mitigations will work or what those mitigations were (i.e., there is no reference to Table 4-1); (9) the EA does not disclose how it reached the conclusion that increased vegetation management resulting from the endowment would protect and enhance grassland habitat or what evidence supports this claim; (10) the EA does not

disclose whether the incremental funding of the endowment affected its conclusion or what aspects or management are essential to the determination; (11) what length of time is required for protection and when will enhancement be successful; (12) is the 1.07 acres considered part of Alternative 2 or the existing conditions, if part of existing conditions when did the environmental review of this action occur; (13) the EA does not disclose the indirect impacts from Alternative 2; (14) how gradual is the invasion of coastal scrub; (15) invasion of coastal scrub is an admission that the existing ITP and HCP is not effective; (16) does the 2006 Biological Opinion support the conclusion that the current ITP and HCP are not working; (17) the EA should discuss why the existing ITP and HCP are not effective; and (18) the EA fails to discuss any mitigations for Alternative 2 despite concluding that its impact is significant.

Response 67-1: The commenter did not state which of the acreages presented on page 4-25 of the EA different from other places in the EA. The acreages presented on page 4-25 are consistent with the rest of the EA.

Response 67-2 to 6-3: The 1.07 acres of previously undisturbed grassland that were graded as part of the 2007 Infrastructure Grading are counted as grassland under “grassland acreage disturbed” in Table 4-3. As noted in the EA, the 2007 Infrastructure Grading is not part of the proposed Amendment; however, impacts resulting from the disturbance of this area were considered under the proposed Amendment and Alternative 2. Please see our response to comment 39 above for more information.

Response 67-4: The comment regarding temporarily disturbed areas is noted.

Response 67-5: The Service understands the Commenters confusion regarding

the remaining 4.66 acres. The EA's statement that 12.01 acres of the permanently disturbed area are grassland habitat was not intended to imply that the remaining acreage is a different type of habitat; the 4.66 acres are also grassland habitat.

Response 67-6: The EA explains on page 3-11 that the host and nectar plants for callippe silverspot butterflies are found within grassland habitat and that hilltops (typically dominated by annual grasses) are also important to callippe silverspot butterfly reproduction. In addition several other butterfly species on the Mountain have similar habitat requirements (i.e., use grasslands). It follows that analysis of grassland habitat is a useful way to identify impacts to callippe silverspot and other butterfly species. However, the EA does not rely solely on an analysis of grassland. The EA includes specific information regarding the distribution of viola, the callippe silverspot's host plant, on the Mountain. Please see Figures 3-4 and 3-5 (Service 2007).

Response 67-7: Regarding comparison on Alternative 1 and 2, please see our response to comment 61 above.

Response 67-8: As Table 4-1 (page 2) indicates, participation in the HCP is designed to mitigate the effects of loss of grassland habitat in the Development Area. Participation in the HCP by landowners provides the funding necessary for the preservation, management, and monitoring of Conserved Habitat, which generally (with vegetation enhancement) contains higher-value habitat, leading to overall net beneficial effects for species of concern. However, as discussed throughout the EA, the existing funding levels are not adequate to keep pace with the management needs of the HCP (primarily due to invasion of grassland habitat by coastal scrub, etc.).

The commenter is correct, the Service inadvertently omitted "(refer to Table 4-1)"

at the end of the second to last sentence on page 4-25.

Response 67-9: Regarding the benefits of increased vegetation management, please see our response to comment 18 above.

Response 67-10: Regarding the timing of additional HCP funding, the timing of the funding (incrementally with development of the remaining homes planned for the Northeast Ridge) is incorporated in the EA's analysis of the benefits of funding. Protection and enhancement are activities that are intended to occur simultaneously throughout various portions of the HCP area and will continue in perpetuity; if the proposed Amendment is approved, these activities are expected to combat the "gradual invasion of coastal scrub species" about which the commenter expresses concern.

Response 67-11: There is no way to determine the amount of time that will pass before enhancement activities are successful. However, effectiveness monitoring is described on page VIII-1 to VIII-9 of the 2007 HMP (San Mateo County Parks 2007).

Response 67-13: The impacts of grading the 1.07 acres in question are included in the analysis under both Alternative 1 and Alternative 2. Please see our response to comment 39 above.

Response 67-14: The indirect effects of Alternative 2 are identified on page 4-27 as "gradual invasion of coastal scrub species" (Service 2007).

Response 67-15: The amount of grassland lost to coastal scrub succession is approximately 5.3 acres per year, as described in the EA on page 2-14 and in the 2007 HMP (San Mateo County Parks 2007, p. III-2).

Response 67-16: The commenter's opinion regarding the success of the current ITP and HCP is noted.

Response 67-17: The 2006 Biological Opinion is consistent with the findings of the 2007 Biological Study and EA.

Response 67-18: The EA notes that existing habitat management and monitoring have been successful; however, only a subset of management and monitoring activities are conducted due to existing funding (i.e., management is limited in frequency, size, duration, etc.). In addition, as noted in the EA, management actions that would adversely affect the callippe silverspot butterfly can not occur currently because the HCP does not include incidental take of this species.

Response 67-19: The EA explains that mitigation measures for these impacts would apply under Alternative 2 (i.e., the mitigation measures in the existing HCP would continue to be implemented) but that these measures would not be adequate to reduce impacts to not significant. NEPA does not require an EA to identify mitigation measures for impacts of the alternatives. In fact, identification of unmitigated impacts is an important function of any EA and assists in the development of the environmentally preferable alternative, as well as aiding the Action Agency in determining if preparation of an Environmental Impact Statement (EIS) is required. However, case law has upheld the ability of an Action Agency to prepare a Finding Of No Significant Impact (FONSI) even when impacts from a propose project are potentially significant if the Action Agency includes mitigation that reduces the impact to less than significant (*Cabinet Mountains Wilderness/Scotchman's Peak Girzzly Bears v. Peterson*, 685 F.2d 678 (D.C. Cir. 1982; *Roanoke River Basin Association v. Hudson*, 940 F.2d 58 (4th Cir. 1991), cert. denied, 502 U.S. 1092 (1992)).

Comment 68: One commenter made the following comments regarding the spread of non-native species: (1) the EA provides no basis for the statement that non-native species out-compete and eliminate butterfly habitat and that the proposal is to continue mitigation that has not worked since 1982; (2) EA states that soil disturbance such as that associated with the proposed development facilitates invasion by non-native species, but does not state whether this is significant and that the EA states that establishment of the endowment reduces this impact to not significant, but provides no analysis of how it reached this conclusion; (3) the EA does not provide an alternative (fund or plan) to vegetation management to control non-native species; (4) no explanation of why the 1982 mitigations will work or what those mitigations were (i.e. there is no reference to Table 4-1); (5) the EA does not define “fully manage” or “grassland conversion” and is unclear if the intent is to convert all of San Bruno Mountain to grassland; and (6) the EA fails to discuss any non-native species mitigations for Alternative 2 despite concluding the impact is significant.

Response 68-1: To the extent that existing habitat management activities have not been entirely successful in combating the invasion of non-native species, the increased funding provided by the proposed Amendment is designed to address that issue.

It is a common well known biological principle that grassland ecosystems in California that are not managed become dominated by nonnative invasive grasses, which over time results in the accumulation of a dense layer of thatch. Dense grass thatch eventually overcrowds native herbaceous species, including the host plants for the listed butterflies. According to the Final Rule on the listing of the callippe silverspot and

Behren's silverspot butterflies (Service 1997): "the primary causes of the decline in the callippe silverspot butterfly and Behren's silverspot butterfly is the loss and degradation of habitat from human activities, including off-road vehicle use, trampling by hikers and equestrians, inappropriate levels of livestock grazing, and invasive exotic vegetation. *See* 62 Fed. Reg. 64306, 64312 (Dec. 5, 1997). According to the Bay Checkerspot Butterfly Recovery Plan, the "primary reasons for the decline of the Bay Checkerspot are habitat degradation and loss, caused by non-native plants displacing or reducing native food plants, and by urban and suburban development (Service 1998, p. II-189).

The expansion of invasive exotic vegetation into habitat that supports host plants for the butterflies, such as viola and lupine, would result in those plants being displaced due competition for resources such as light. In addition, once covered by exotics, the butterflies can no longer access the host plants for oviposition.

As noted in the EA removal of invasive species has been successful during the 26-year life of the HCP. In fact without such aggressive removal of exotic plants, the mountain would contain large infestations of exotic plants including gorse, broom, pampas grass, eucalyptus, fennel, etc. Over the past 27 years, based on vegetation mapping, more acres of exotic vegetation has been removed and restored as habitat, than there has been acres converted to urban development. Approximately 290 acres of gorse and approximately 45 acres of eucalyptus have been treated and removed (San Mateo County Parks 2007, p. 3). In addition, the removal of small infestations has resulted in the prevention of greater spread of exotics on the Mountain. Little if any of this work could have been done without funding provided by the HCP.

Response 68-2: The EA discusses the impact from spread of non-native species,

and not soil disturbance, on page 4-27 (Service 2007). The EA explains that the spread of non-native species will not be a significant impact, despite the soil disturbance associated with development at the Northeast Ridge, enhanced vegetation management will combat the spread of invasive species into butterfly habitat by increasing the scope of current management. The Service provided an explanation of why increased funding for management actions reduces the risk of non-native species on page 4-28 (Service 2007), because the substantial increase in funding allows for enhanced vegetation management that over time would result in improved habitat conditions.

Response 68-3: The HCP and the 2007 HMP incorporate adaptive management principles to ensure that the effectiveness of management activities is monitored and that management activities are adjusted accordingly, for maximum efficacy.

Response 68-4: The 1982 EIR/EA explains that the HCP itself is designed to provide mitigation for biological impacts (Service 1982, p. III-5). Invasion of butterfly habitat by non-native species is one of the greatest threats to butterfly species on the Mountain and is a primary focus of the management activities detailed in the 2007 HMP, which are an integral part of the HCP. By participating in the HCP, the applicants help to fund these activities. Mitigation measures are provided in Table 4-1 (Service 2007). In addition, the increased funding provided by Brookfield will greatly enhance the ability of the habitat manager to combat invasive species. The commenter is correct, the Service inadvertently left out “(refer to Table 4-1)” at the end of the second to last sentence on page 4-25 (Service 2007) as it had in the sections before and after “Spread of non-native species.”

Response 68-5: Grassland conversion,” in this context, refers to the displacement

of grassland by scrub and brush species. To “fully manage” this threat means to stop the gradual loss of grassland to brush and scrub within the HCP area. As noted in the HCP, and the 2007 HMP, the goal of the habitat manager is to halt the gradual loss of grassland habitat on the Mountain and achieve maintaining at least 1200 acres of grassland within the HCP area (Service 2007, p. 2-9; San Mateo County Parks 2007, p. 8); it is not to convert all of San Bruno Mountain to grassland.

Response 68-6: Regarding mitigation under Alternative 2, please see our response to comment 67-19 above.

Comment 69: One commenter made the following comments regarding special status plants: (1) the EA is unclear what plant species it purports to examine; (2) Table 3-2 lists plants within the vicinity of the Mountain but not on it; (3) if lupine is a special status species why isn't “Viola [pedunculata];” (4) the EA's conclusion that special status plants have not been documented within the development area is contradicted by the evidence and the EA considers lupine and other plants that serve as host or nectar sources for listed butterflies as special status; (5) the EA provides no explanation of why the 1982 mitigation measures will work or what they were and there is no reference to Table 4-1; (6) the EA's conclusion that management under Alternative 1 would emphasize protection and expansion of special status plants is contradicted by the record; (7) would special status plants be targeted as part of the vegetation management, if so what is the impact; (8) the EA does not describe what management actions would be used on what species or on which portions of the Mountain; (9) impacts to special status plants under Alternative 2 are uncertain because the EA uses difference acreage than used in other

parts of the biological impact analysis; and (10) the EA fails to discuss any special status plant mitigations for Alternative 2 despite concluding its impact is significant.

Response 69-1 to 69-3: Table 3-2 contains a column that details the occurrence or potential occurrence of each special status species within the HCP study area. Special-status species are those that are rare or listed as threatened or endangered under the ESA. *Viola pedunculata* has no special status and is actually a common plant throughout the Bay Area. The lupine in Table 3-2 is identified as the San Mateo tree lupine (*Lupinus eximius*) and is a rare plant; the tree lupine is not one of the three species of lupine that the mission blue uses as a host plant, which are identified on page 3-8 of the EA as *Lupinus albifrons*, *L. formosus*, and *L. variicolor* (Service 2007).

Response 69-4: The EA states that special status plant populations have not been documented within the development area but that it is possible that undiscovered populations exist. The EA states that such populations could be impacted by development if present. In addition, the EA does not consider host or nectar plants of listed butterflies as special status unless they are identified in Table 3-2. The meaning of the sentence on 4-29, which states “Management efforts emphasize protection and expansion of special status species populations that service as host or nectar plants for the listed butterflies” is that some special status plants identified in Table 3-2 also serve as host or nectar plants for listed butterflies, not that all host and nectar plants are special status.

Response 69-5: Regarding whether impacts are significant before mitigation, please see our response to comment 62-17 above. Table 4-1 does not contain any

mitigation measures exclusively for special status plants. However, the 1982 EIR/EA notes that the management measures under the HCP should improve the overall chance that rare plant species will persist on San Bruno Mountain and the mitigation measures as a whole mitigated for losses caused by development (Service 1982, p. III-17; 18), including those to special status plant species.

Response 69-6 to 69-8: Management and protection of special-status plant species would continue unchanged. Control of coastal scrub would be limited to control in areas of common native (such as coyote brush) and non-native (such as French broom) scrub vegetation and in locations where grassland used to be present and has now been replaced by these rapidly expanding species (such as along the sub-ridgelines south of Guadalupe Valley). Many of these areas are discussed and depicted in the 2007 HMP (San Mateo County Parks 2007, p. IV-21, IV-25, IV-26, IV-28, VI-3, and VI-5). Areas historically scrub, such as the western slopes, would not be targeted. That the “Habitat Management Plan only mentions 'special status plants' once- in regards to Reservoir Hill” is incorrect. Rare plants are discussed on pages IV-21 and VIII-4 and in Appendix C and are mapped in Figures 10, 11, and 12 of the 2007 HMP and would not be targeted for removal. Vegetation priority areas are discussed on pages VII-1 to VII-4 of the 2007 HMP (San Mateo County Parks 2007) and describe the location, type of management, and type of vegetation targeted in each zone. The EA also discusses priority management zones on pages 2-8 to 2-9 (Service 2007).

Response 69-9: The numbers for affected acreage under Alternative 2 that are given on page 4-29 are the same as those used elsewhere in the EA, such as in Table 2-2. The commenter may have confused total acreage to be disturbed with the *grassland*

acreage to be disturbed. The latter amounts are smaller and are provided in Table 4-3.

Response 69-10: Regarding special status plant mitigation under Alternative 2, please see our response to comment 67-19 above.

Comment 70: One commenter stated (1) the EA does not provide a location of where the callippe silverspot butterfly's host and nectar plants are located or where courtship and mating occur; (2) the EA states the callippe silverspot "requires the presence of adult nectar plants, such as coyote mint (*Monardella villosa*) and pincushion plant (*Scabiosa atropurpurea*)" but does not analyze the impacts of the proposed Amendment on these species; and (3) the EA does not estimate the number of callippe silverspot butterflies that will be killed by the project.

Response 70-1 to 70-2: The commenter is correct that the callippe silverspot butterfly requires nectar plants for food; however, as noted on page 3-11, the callippe silverspot butterfly utilizes a variety of nectar plants so long as they are located in the same general area as their larval host plant (the viola) (Service 2007). Therefore, the presence of the viola was used as a surrogate for determining presence of the callippe silverspot butterfly. In addition, the Biological Study states on page 17 that the callippe silverspot does not appear to be limited geographically by availability of nectar plants. Accordingly, the location of nectar plants that are not located in the same area as the viola, and potential impacts to these nectar plants, are not material to the discussion of effects on callippe silverspot butterflies. Nectar plants can be found throughout nearly all grassland habitat on the Mountain and although the proposed Amendment would result in

the destruction of nectar plants within the area disturbed, butterflies would not be significantly impacted by this loss due to the sheer abundance of plants from which to nectar (feed) throughout the remaining grassland habitat. Table 3-3 in the EA shows the distribution of viola on the Mountain. All hilltops and ridgelines supporting viola provide habitat for mating and courtship.

Response 70-3: NEPA does not require an EA to quantify the number of individuals that may be affected by a proposed Amendment. In addition, the use of habitat loss as a proxy, for determining the scope of adverse affects of listed species, is acceptable under the ESA. See *Arizona Cattle Growers Ass'n v. U.S. Fish and Wildlife Service*, 273 F.3d 1229, 1250 (9th Cir. 2001). The EA estimates the acreage of callippe silverspot habitat that will be affected by the proposed Amendment (Service 2007, p. 4-31).

Comment 71: One commenter made the following comments regarding destruction of viola habitat: (1) the EA does not provide information regarding the number of viola on the Mountain and does not characterize the quality of this habitat on the Northeast Ridge; (2) the impact analysis for Alternative 1 fails to discuss the impact of both development and vegetation management together; (3) the EA provides no basis for amount of viola that will be destroyed and the number stated is contradicted by the evidence in the record; (4) the EA states the range of acres of viola that will be affected is 3.0 to 4.4, but only provides an estimate of the number of individuals for 3.1 acres; (5) the EA does not disclose if the range of acres impacted depends on factors other than annual fluctuations; (6) the EA treats the 2007 Infrastructure grading as part of

Alternative 1, but elsewhere treats it as part of the baseline or Alternative 2; (7) the EA fails to discuss how it reached the conclusion that the amount of habitat that will be lost under the 2007 VTM is within normal annual variation; (8) EA states the 2007 VTM contains 3.1 acres of low value viola habitat that will be disturbed, but does not define low or high value habitat and this information is contradicted by the Longcore et al. report; (9) the EA only discusses the impact of habitat available for reproduction and does not discuss the impact of the project on butterfly feeding or sheltering; (10) the EA does not discuss whether the impacts are significant prior to mitigation; (11) there is no discussion of where “Callippe Hill” is located or why preserving hilltopping habitat will be sufficient mitigation; (12) there is no mitigation for destruction of viola habitat up to 4.4 acres; (13) there is no discussion of the impacts on the callippe silverspot butterfly by each of the techniques on page 4-32 to 4-33; (14) the EA does not discuss if impacts from vegetation management will be significant; (15) the EA does not discuss the level of take of callippe silverspot butterfly from management of invasive species or discuss how butterfly habitat will be improved since viola can not be successfully propagated; (16) the EA defers analysis of impacts from livestock grazing and burning until after project approval; (17) the ESA standard of jeopardy is not the same as significant under NEPA and the proposed Amendment was not considered in the 2006 Biological Opinion; (18) there is no discussion how or why establishment of an endowment reduces impacts to viola to not significant; (19) mitigation measure 1 is vague and there is no discussion why flagging will only occur when ‘crews are unfamiliar with the native plant species;’ (20) the analysis of impacts to callippe silverspot butterflies “from Alternative 2 does not take into account an informed estimate of the Viola [pedunculata] habitat based on variability

by location of habitat quality;”(21) indirect impacts from continuation of existing management and monitoring are not defined nor is their significance; (22) Alternative 3 fails to discuss mitigations; (23) and the claim that Alternative 3 would result in continued invasion by non-native species is contradicted by the 2006 Biological Opinion.

Response 71-1: Viola was mapped on San Bruno Mountain in 2000, 2004, and 2005. The 2000 mapping was conducted using field mapping on orthophotos, and the 2004 and 2005 mapping was conducted using handheld Trimble Explorer 3 GPS units (Service 2007, p. 4-30). The average viola acreage (acreage was used to calculate habitat, not sheer numbers of plants) mapped in 2000, 2004, and 2005 within Unit II of the Northeast Ridge was 20.6 acres. An additional 6.3 acres of viola is located within the Conserved Habitat within Unit I, so the total area of viola for the Northeast Ridge is 26.9 acres. Impacts were evaluated using the mapping software program ArcView to overlay and compare areas proposed for development (temporary and permanent disturbance areas) with the viola habitat. Including impacts that have occurred due to the “2007 Infrastructure Grading”, total estimated viola impacts from the 2007 VTM are 3.05 acres, compared to 8.15 acres of impacts under the 1989 VTM. Development of the 2007 VTM substantially reduces impacts to viola habitat (permanent and temporary impacts) by 5.1 acres (63 percent) compared to development of the approved 1989 VTM. The total amount of impacts in 2007 account for less than 11.33 percent of the viola within the Northeast Ridge and 2.28 percent of the viola on the Mountain, down from 30.29 percent and 6.10 percent, respectively, for the 1989 VTM. Under a worst case scenario that uses the highest estimates for permanent (2005 year), temporary (2004 year), and 2007

Infrastructure Grading impacts to viola from the 2007 VTM, viola impacts would be 3.53 acres. Within a population of viola, the density of plants will vary depending on year and weather conditions. The variation in density within the project area is reflective of the variation in density across the Mountain, and therefore the calculation that the viola within the project area represents approximately 2.28 percent of the Mountain's viola population is accurate.

Response 71-2: The EA explains that development under Alternative 1 will result in the loss of some viola habitat but that impacts to callippe silverspot will be mitigated. The EA also explains that use of certain vegetation management techniques could result in incidental take of individual callippe silverspot butterflies, but that these techniques have been shown to have a significant overall positive effect on butterfly habitat when used properly (Service 2007, p. 4-32). In addition, the EA outlines the measures that will be taken to ensure that management techniques avoid and minimize harm to viola habitat. Finally, the EA states that neither development of the Northeast Ridge nor changes in vegetation management will cause significant impacts to callippe silverspot under the proposed Amendment.

Response 71-3 to 71-5: The EA explains that the amount of viola habitat present on the Northeast Ridge, and elsewhere, fluctuates significantly from year to year. Therefore, the estimates of viola habitat acreage and number of individual viola plants that will be destroyed by development under the 2007 VTM are based on averages derived from data collected over a period of several years (Service 2007, p. 4-30, 4-31, Table 4-4). The commenter does not identify what data contradicts these numbers, which makes it difficult for the Service to provide a response.

Response 71-6: Regarding the 2007 Infrastructure Grading, please see our responses to comments 39 and 67 above.

Response 71-7: The EA states that the estimated amount of viola habitat lost due to the proposed Amendment will be less than the amount by which viola habitat fluctuates from year to year under existing conditions. The basis for the year-to-year variability figures is explained on pages 4-30 to 4-31 (Service 2007).

Lower-value callippe silverspot butterfly habitat generally is habitat that does not include extensive stands of viola and nectar sources contiguous with hilltops suitable for mating. See the discussion of callippe silverspot butterfly habitat requirements on page 3-11 of the EA (Service 2007) and on page 17 of the Biological Study (Service 2007a).

Response 71-8: The commenter does not explain how the “Longcore et al report” contradicts the concept that butterfly habitat may not be of varying quality nor can the Service can find any evidence of such in the report. Regarding the acreage of viola that could be destroyed, the EA explains on page 4-31 that the figure of 4.4 acres represents the upper extreme of the theoretical range of viola habitat that could be impacted by development under Alternative 1. Please see our response above.

Response 71-9: Callippe silverspot butterflies are a “hill-topping” species and perform the majority of their mating at the hilltops and ridgelines within suitable habitat. “Callippe Hill” on the Northeast Ridge under the 2007 VTM will not be impacted by development and thus the highest quality breeding habitat for the butterflies on the Northeast Ridge will remain. Only a small area (approximately 0.84 acre) of existing Conserved Habitat would be lost (i.e., developed) under the Amendment, and this area consists primarily of a eucalyptus grove, which does not provide habitat for the callippe

silverspot. Nectar plants are found throughout the entire grassland habitat on the Northeast Ridge, but the exact location varies annually. Since the callippe silverspot utilizes nectar plants concentrated in the same area as viola, impacts to viola habitat would have similar impacts on callippe silverspot feeding and sheltering. The Amendment would decrease the amount of proposed development on the Northeast Ridge.

Response 71-10: Regarding the significance of impacts before mitigation, please see our response to comment 62-6 above.

Response 71-11: Callippe Hill is the hilltop habitat area at the Northeast Ridge that will be preserved under the proposed HCP Amendment (Service 2007, p. 4-35). The EA states that preservation of this habitat will contribute to mitigation of impacts to callippe silverspot, not that it will be sufficient in itself to mitigate all such impacts.

Response 71-12: Regarding Mitigation Measure 1, the measure summarizes various precautions that are designed to minimize potential impacts to callippe silverspot from vegetation management activities. The EA states that the mitigation measures in the 1982 HCP and EIR/EA (including vegetation management activities) in conjunction with Mitigation Measure 1, will mitigate for loss of viola habitat.

Regarding the figure of 4.4 acres, the EA explains on page 4-31 that the figure represents the upper extreme of the theoretical range of viola habitat that could be impacted by development under Alternative 1, not the actual estimate of acreage that will be impacted. The mitigation measures provided are for impacts related to the Amendment, including the 4.4 acres.

Response 71-13: The description of vegetation management activities and their

purpose is consistent with descriptions found elsewhere in the EA and in the 2007 HMP. The discussion of management techniques on pages 4-32 to 4-33 explains how the techniques could harm viola habitat; as the EA states on page 4-30, viola habitat is used as a surrogate for potential callippe silverspot occurrence because viola is the host plant for callippe silverspot.

Regarding the discussion of significance on page 4-33 (Service 2007), we acknowledge that the wording found in the EA is somewhat unclear. The intent is to convey that (1) the vegetation management activities will not cause significant adverse impacts to callippe silverspot butterflies resulting from loss of viola habitat, with the adoption of new Mitigation Measure 1 and implementation of existing mitigation measures; and (2) the net effect of vegetation management activities under the proposed Amendment, with the additional funding provided by Brookfield, will be beneficial to viola habitat, and therefore callippe silverspot, overall. This is true despite the fact that grazing, prescribed burning, and other vegetation management actions may result in incidental take of individual callippe silverspot, as discussed on page 4-32 (Service 2007).

Response 71-14: The EA states that the level of potential incidental take caused by management activities would be minor and that any such impacts would be fully mitigated by the management activities themselves (Service 2007, p. 4-32). As noted in our response to comment 70 above, NEPA does not require an EA to quantify the number of individuals that may be affected by a proposed Amendment.

Response 71-15: The EA does not rely on creation of viola habitat as mitigation. The EA explains that management activities will focus on creating conditions in which

viola (and other plants) can thrive and on combating the invasion of other plant species that can out-compete viola.

Response 71-16: Analysis of these impacts resulting from grazing and burning are not deferred. The EA explains that grazing and burning will be tested on a limited basis to determine how they can best be used and to ensure that implementation of these measures proceeds in a manner that does not have significant adverse effects. In addition, use of these techniques will be limited to areas with a low density of butterfly host plants (Service 2007, p. 4-34).

Response 71-17: The commenter is correct insofar as significance under NEPA does not have the same meaning as jeopardy under the ESA. However, the EA does not rely on the 2006 Biological Opinion for its conclusion that impacts to viola habitat will not be significant under the proposed Amendment. The Biological Opinion is merely cited as additional evidence that impacts to viola and callippe silverspot butterflies would be minor even absent the increased vegetation management and new Mitigation Measure 1 provided by the proposed Amendment. The 2006 Biological Opinion analyzed a development proposal similar to the current proposed Amendment, but with slightly larger impacts to callippe silverspot habitat. Thus, the analysis of the proposed Amendment and its effects on listed butterfly species is relevant, although not solely determinative of significance.

Response 71-19: The comment regarding Mitigation Measure 1 being vague is noted. Flagging and monitoring are intended to aid crews in recognition and avoidance of native and/or host plants and are unnecessary if crews are familiar with said plants. “As close to the target area as possible” depends upon what is possible under the

circumstances; the measure is designed to *minimize* herbicide drift.

Response 71-20: The viola habitat that would be affected by development under Alternative 2 is discussed in greater detail on page 4-31, which states that Alternative 2 would affect 8.6 acres of viola habitat, including both high and low value habitat, while Alternative 1 would affect only low value habitat (Service 2007). High value habitat is primarily the hilltop region that was scheduled for development under the 1989 VTM (Unit II Neighborhood I) but is preserved in an undeveloped state under the 2007 VTM (i.e., the proposed Amendment). We note that the commenter elsewhere states that distinctions between habitat of varying quality are invalid, but here states that an “informed estimate” based on “variability by location of habitat quality” is apparently necessary.

Response 71-21: The indirect effects of Alternative 2, which the EA refers to on page 4-34, are identified (in the same paragraph) as gradual invasion of coastal scrub species due to continuation of existing vegetation management practices at current funding levels. Moreover, the EA concludes that impacts to callippe silverspots resulting from loss of viola habitat would be significant under Alternative 2; it is not necessary for the EA to reach a separate conclusion regarding the significance of the subset of indirect impacts.

Response 71-22: Regarding mitigation, please see our response to comment 68-19 above.

Response 71-23: The comment does not identify how the 2006 Biological Opinion contradicts the statements in the EA; however, the 2006 Biological Opinion does not determine significance for purposes of the proposed Amendment or EA. If approved,

the proposed Amendment will require preparation of a new biological opinion, as noted in our response to comments 4 and 47 above.

Comment 72: One commenter made the following comments regarding loss of hilltopping habitat: (1) the EA does not analyze the loss of ovipositing habitat or how much will be lost under Alternative 1 or 2, or that has been lost from the 1.07 acre Infrastructure Grading; (2) the EA does not contain a description of the location of Alternative 1 relative to hilltops; (3) the EA does not define the area “temporarily disturbed;” (4) EA does not define the amount of the ridgeline that will remain or in what condition it will be in or how long it will persist; (5) the EA does not define what constitutes “the area (after grading) [that] will be restored,” how it will be restored to viola habitat, how long before it will be restored (and the impact from the delay), what happens if restoration is not successful; (6) EA does not define “temporary displacement,” its impacts, or what evidence exists that other areas would provide suitable hilltops for butterflies, and where are these other two areas; (7) the EA does not state why impacts from the infrastructure grading would be minor of if they are significant; (8) there is no discuss of why the endowment will mitigate destruction of hilltopping habitat; (9) the EA does not discuss mitigations for cumulative or indirect impacts; (10) the EA omits disclosure of how much ridgeline hilltopping habitat is currently used by callippe silverspot would be impacted by Alternative 2; (11) the EA does not state where the temporarily disturbed habitat closest to Guadalupe Canyon Parkway is or whether it would be significant; (12) there is no quantification of high density hilltopping habitat under Alternative 2; and (13) there are no mitigation measures

for Alternative 3.

Response 72-1: “Oviposit habitat” refers to areas supporting viola. Female callippe silverspot butterflies oviposit on viola. The EA contains an extensive discussion of how much viola habitat will be affected under Alternative 1 and 2; both of these alternatives include the impacts of the 2007 Infrastructure Grading (Service 2007, p. 4-30 to 4-34).

Response 72-2: The EA, on page 4-35, discusses at length the location of Alternative 1 development in relation to nearby hilltops.

Response 72-3: The boundaries of the temporarily disturbed area are shown on Figure 2-4 (Service 2007). The EA explains that temporarily disturbed areas will be restored to grassland habitat after grading and will be dedicated as Conserved Habitat (Service 2007, p. 2-5). Temporarily disturbed areas are expected to be restored to grassland habitat within one season.

Response 72-4 to 72-5: The portion of the ridgeline south of Guadalupe Canyon Parkway that will remain ungraded is shown on Figure 2-3 and 2-4 (Service 2007); this is the area that will not be disturbed either permanently or temporarily. All Conserved Habitat will be preserved in perpetuity for the benefit of species of concern. The EA states that restored areas will be restored to grassland habitat, not to viola. The EA does not rely upon restoration of viola in any way for mitigation of impacts to callippe silverspot butterflies; it assumes that loss of viola is permanent. Thus, there is no additional impact to callippe silverspot if the restoration is not “successful.”

Response 72-6: “Temporary displacement” means that the butterflies in question

would be temporarily unable to use the areas being graded and would be forced to use other locations for breeding, feeding, etc. The EA states that adjacent hilltops and ridgelines would provide suitable habitat for callippe silverspots that are temporarily displaced by project grading, since these areas already provide suitable habitat for callippe silverspot butterflies). The locations of these sites are identified on page 4-35 (Service 2007).

Response 72-7 to 72-10: The impacts to hilltopping habitat are primarily limited to the temporary impacts described on page 4-35, as well as the minor impacts associated with the 2007 Infrastructure Grading. The latter are minor because of their small geographic scope and because the area is not high quality hilltopping habitat, due to the presence of the eucalyptus grove. The EA states that impacts to hilltopping habitat will be mitigated by preserving as Conserved Habitat high quality hilltop areas (i.e., the area removed from development by elimination of UII-NI) and by enhanced vegetation management resulting from the establishment of a non-wasting endowment. Improved habitat management will mitigate impacts to hilltopping habitat by improving the management of similar preserved habitat in other parts of the Conserved Habitat. The term “direct loss” of hilltopping habitat is not intended to draw a distinction between direct and indirect impacts. It refers to loss of hilltopping habitat due to grading activities (i.e., direct physical destruction of habitat).

Response 72-11: The boundaries of the temporarily disturbed areas under the 1989 VTM are shown on Figure 2-4, including hilltopping habitat. Guadalupe Canyon Parkway also is shown on Figure 2-4. Impacts to hilltopping habitat are analyzed, contrary to the commenter’s statement and the EA concludes that impacts to hilltopping

habitat under Alternative 2 would be significant (Service 2007, p. 4-36).

Response 72-12: The commenter is correct that the EA does not specifically identify the amount of “hilltopping habitat” that would be affected by Alternative 2; however, Figure 2-2 of the EA overlays the 1989 VTM with a color areal photograph and clearly depicts the hilltops on the Northeast Ridge. Table 2-2 of the EA notes the amount of habitat that would be lost under the 1989 VTM.

Response 72-13: Regarding no discussion of mitigation for significant impacts from Alternative 3, please see our response to comment 62-6 above.

Comment 73: One commenter made the following comments regarding barriers to movement: (1) the EA uses different acreages on page 4-36 than elsewhere; (2) the EA does not consider impacts from Court B or Golden Aster Court; (3) the EA does not explain why “temporary disturbances” would not constitute a barrier to movement; (4) the EA does not discuss the viability of lower elevation corridors and nectar/host plant islands; (5) the EA fails to disclose where the “remaining narrow section of habitat” will be located or how likely it will be that callippe silverspot butterflies can locate this habitat; (6) why the EA expects callippe silverspots to utilize the area north of Guadalupe Canyon Parkway when the EA does not disclose any viola habitat there; (7) what will be the impact if callippe silverspots are not able to utilize the narrow corridor; (8) the EA claims that callippe silverspots use the area north of Guadalupe Canyon Parkway (Parkway) but not when or how they use the area, or the basis for this conclusion; (9) there is no analysis of how the Parkway will act as a barrier; (10) the EA fails to discuss the impact from the delayed removal of the eucalyptus trees; (11) the EA fails to analysis

how many nectar and host plants are within the proposed development despite admitting Alternative 1 will increase the width of the barrier; (12) there is no discussion why impacts from the 1.07 acre infrastructure grading were minor and not significant; (13) there is no analysis of why “Callippe Hill...or endowment funding... will mitigate Alternative 1 barrier to movement impacts to not significant;” (14) there is no mention of Brookfield’s commitment to preserve the dispersal corridor along Guadalupe Canyon Parkway; (15) there is no discussion of how the endowment will improve habitat conditions within and adjacent to barriers or why the Plan Operator would maintain barriers; (16) there is no discussion of whether invasion by coastal scrub would act as a barrier under Alternative 2; and (17) if Alternative 3 has a significant and unmitigated impact, why does the EA not discuss mitigation.

Response 73-1: The EA states on page 4-36 that Alternative 1 would permanently disturb 16.67 acres, which is consistent with the figure given in Table 2-2. The commenter may be confusing the total acreage to be disturbed with the grassland acreage to be disturbed. The latter figure is smaller and is provided in Table 4-3.

Response 73-2 to 73-3: Regarding homes located at Court B and Golden Aster Court, please see our response to comments 28, and 39. The EA explains that temporarily disturbed areas would not be a barrier to movement because the areas would be restored to grassland following construction. Grassland is not a barrier to callippe silverspot movement, regardless of the presence or absence of viola.

Response 73-4: The lower elevation corridors and nectar/host plant islands to which the EA refers to on page 4-37 include areas within the “contiguous habitat along

both sides of Guadalupe Canyon Parkway” that is discussed in the sentences immediately following (i.e., the “narrow section of habitat along the edge of the homes) (south of Guadalupe Canyon Parkway),” and the “open space lands on the northern side of Guadalupe Canyon Parkway.” The “narrow section of habitat” is located between the northern edge of the proposed development and the southern edge of the Parkway, as depicted on Figure 3-5. The EA explains that callippe silverspots are known to use the open space lands on the northern side of Guadalupe Canyon Parkway (Service 2007, p. 4-37). In addition, callippe silverspot butterflies have been observed along the southern side of Guadalupe Canyon Parkway (despite the area lacking stands of viola as depicted on Figure 3-4 of the EA), including the “narrow section of habitat” (TRA 2007, p. 62, 65) and are expected to continue to do so once the area has been restored to grassland habitat. The Service is not aware of any information that contradicts this expectation.

Response 73-5 to 73-6: Regarding the commenter’s assertion that the EA does not disclose any viola habitat north of Guadalupe Canyon Parkway, the EA shows viola habitat north of the Parkway, on Figure 3-4. The Service expects callippe silverspot butterflies to utilize the area north of the Parkway because they have been observed using this area in the past, which is depicted on Figures 8 and 11 of the Biological Study (TRA 2007, p. 62, 65).

The temporarily disturbed area will be restored to grassland, which is what the majority of the area is currently, (not viola habitat) (Service 2007, Figure 3-4) immediately following the completion of construction. Brookfield will be responsible for funding the cost of restoration and achieving the designated success criteria before the area can be dedicated to the County as Conserved Habitat. The fact that the callippe

silverspot disperses from the Northeast Ridge population center to the Southeast Ridge population is explained on pages 3-12, 4-36, and 4-37 of the EA, as is issues of barriers to movement between the two population centers. Additional information is contained in the 1981 Biological Study of San Bruno Mountain (TRA, 1982) that supported the formulation of the HCP in 1983. In addition, the presence of larval food plants is not necessary to induce movement; nectar plants, which are more widespread, also induce movement. Finally, the Northeast Ridge currently includes the grove of eucalyptus trees, which already acts a barrier to movement (likely due to the height and density of the grove). Removing the eucalyptus would remove a major barrier, and it has been observed that callippe silverspot can move through ornamental shrubs and flowers more easily than through a thick stand of eucalyptus.

Response 73-8 to 73-9: The statement that callippe silverspots use the land north of Guadalupe Canyon Parkway is based on monitoring and observation by the Habitat Manager during the life of the HCP (Service 2007, p. 4-34). Survey results showing that callippe silverspots cross Guadalupe Canyon Parkway are found on Figures 8 and 11 of the Biological Study (TRA 2007, p. 62, 65) and Figure III-3 of the 1989 Addendum (TRA 1989, p. III-8).

The EA's analysis of callippe silverspot dispersal is not based on the assumption that callippe silverspots will cross the Northeast Ridge development. The EA simply notes that passive dispersal of callippe silverspots "might" occur across the development area. Butterflies are expected to move around the development; this is one reason for eliminating the ridgetop homes (Unit II Neighborhood I) from the 2007 VTM.

As the EA discusses on pages 4-36 to 4-38, while Guadalupe Canyon Parkway is

considered a partial barrier to callippe silverspot movement, they have been observed crossing the highway and are expected to continue to use the habitat on either side of the Parkway. In addition, thinning and removal of the eucalyptus trees is expected to improve butterfly movement in this area.

Response 73-10: The eucalyptus removal that has taken place is not part of the proposed Amendment; please see our response to comment 31 above.

Response 73-11: The area of permanent impacts from development is assumed to represent a complete loss of habitat. Given this loss of habitat, the EA still concluded that with mitigation the impact are less than significant. The distribution of viola within the area is depicted on Figure 3-4 of the EA (Service 2007). With respect to dispersal, the EA assumes that the development area will act as a barrier to movement, but it recognizes that the occurrence of nectar and host plants within the development area could affect the extent of this barrier. In addition, the EA states the height of the homes within the area will also affect the extent to which the development is a barrier (Service 2007, p. 4-37).

Response 73-12: The infrastructure grading that has occurred on the 1.07 acres is not part of the proposed Amendment; please see our response to comment 39 above. However, its impacts on butterfly movement will be minor and not significant because of the small area affected and the location of the area relative to existing and planned development.

Response 73-13: The preservation of Callippe Hill will mitigate barriers to movement because Callippe Hill is high value hilltop/ridgeline habitat, and callippe silverspots require such habitat for courtship and mating (Service 2007, p. 4- 30). The

funding of the HCP Endowment will help to preserve habitat and movement corridors throughout the Conserved Habitat through vegetation management actions that restore and maintain these habitats.

Response 73-14: The “commitment to preserve the dispersal corridor along Guadalupe Canyon Parkway” is reflected in the 2007 VTM and revised operating program, which show that Brookfield will not remove (i.e., develop) all the potential butterfly habitat located along the Parkway. In addition, under the existing HCP, this corridor has already been identified as becoming part of the Conserved Habitat; this is depicted in Figure III-8 of the 1989 Addendum (TRA 1989, p. III-21). The 2007 VTM does not eliminate the corridor and as such it is still will still be dedicated as Conserved Habitat under the HCP.

Response 73-15: As discussed throughout the EA, the increased endowment will allow for enhanced vegetation management actions throughout the Conserved Habitat (although not all at once), including areas of Conserved Habitat adjacent to barriers. The “partial barriers” that would be maintained by the Plan Operator include areas of Conserved Habitat that are currently occupied by trees, dense brush and other vegetation that acts as a partial barrier to callippe silverspot movement. Vegetation management activities will help to reduce fragmentation of grassland habitat by such vegetation, thereby reducing barriers to callippe silverspot movement.

Response 73-16: Although callippe silverspot butterflies and coastal scrub plant species have existed adjacent to each other for long periods of time, the expansion of coastal scrub into grasslands habitat has been increasing in the HCP area for at least the last few decades. The EA explains that invasion of native grasslands by coastal scrub has

adverse impacts on callippe silverspot butterflies because it fragments areas of high quality habitat. The statement that “growth of partial barriers could potentially occur” refers to the growth of clusters of trees (Service 2007, p. 4-36).

Response 73-17: Regarding mitigation, please see our response to comment 67-19 above.

Comment 74: One commenter made the following comments regarding habitat fragmentation: (1) the EA fails to explain how callippe silverspots will be able to move around development to the north; (2) the EA fails to explain how it reaches the conclusion that the 2007 VTM would not result in habitat fragmentation to the point of isolation; (3) the EA does not disclose how it reached the conclusion that habitat fragmentation from the 1.07 acre infrastructure grading would be minor or whether the impact is significant; (4) there is no analysis of how Callippe Hill or endowment funding would mitigate habitat fragmentation impacts from Alternative 1 to less than significant; (5) no mention of Brookfield’s commitment to preserve the dispersal corridor along Guadalupe Canyon Parkway; (6) the EA does not disclose how the permanent dedication of the large contiguous block of grassland habitat will be connected to other populations or how and why this will act as effective mitigation; and (7) the EA does not discuss how vegetation management will effect callippe silverspot butterfly fragmentation or how grassland patches currently fragmented would become connected.

Response 74-1: Regarding callippe silverspot movement around the development, please see our response to comment 73 above.

Response 74-2: The conclusion that Alternative 1 would not result in habitat fragmentation to the point of isolation reflects the fact that callippe silverspots butterflies would be able to move around the proposed development to reach Callippe Hill (TRA 2007, p. 28). The EA states on page 4-37 that impacts from habitat fragmentation are not significant under Alternative 1. Further, please see our response to comment 73-1 to 73-16 above.

Response 74-3: The conclusion in the EA that impacts from the 1.07 acres of infrastructure grading are minor is based on the fact that only 0.8 acres of viola habitat was impacted. This represents a loss of 0.8 percent of viola habitat on the Mountain. The fraction of a percent loss is not expected to appreciably diminish the value of the habitat for the callippe silverspot butterfly, or prevent the remaining habitat on the Mountain from sustaining its role in the conservation of the species. The EA concluded that the funding of a \$4,000,000 endowment and resulting enhanced management and monitoring as well as Mitigation Measure 1 mitigated this impact to not significant (Service 2007, p. 4-31).

Response 74-4: The preservation of Callippe Hill and the dispersal corridor along Guadalupe Canyon Parkway will mitigate habitat fragmentation impacts by preserving high value habitat and allowing callippe silverspots to move between that habitat and other areas on the Mountain. The funding of the endowment will mitigate habitat fragmentation impacts by improving vegetation management, which combats coastal scrub succession, invasion of native species and other factors that can cause habitat fragmentation.

Response 74-5: Please see our response to comment 73-1 to 73-14 above

regarding the commitment by Brookfield to preserve the dispersal corridor along Guadalupe Canyon Parkway.

Response 74-6: The contiguous block of grassland habitat will be permanently dedicated as Conserved Habitat and will be connected to other populations by the movement corridors discussed on pages 4-36 to 4-39 (Service 2007).

As described on page 4-39 (Service 2007), the EA concluded that the permanent conservation of high quality callippe silverspot habitat, including Callippe Hill, which is utilized during courtship and mating, in conjunction with the establishment of an endowment, that allows for enhanced management and monitoring across all Conserved Habitat, not just on the Northeast Ridge, reduces this impact to not significant as a result of the mitigation.

Response 74-7: Controlling invasive species and scrub will allow grassland habitat to be reestablished, resulting in improved connection of areas currently fragmented habitat by non-native and invasive plant species (Service 2007, 4-39).

Comment 75: One commenter made the following comments regarding disturbance to individuals (harassment): (1) the EA does not state whether the harassment is a result of disturbances to breeding, feeding, or sheltering as required by the ESA; (2) the EA does not state if impacts from frequent disturbance on reproductive success are significant nor is there an analysis of how many callippe silverspot will be affected by this impact; (3) there is no analysis of the impact from habitat degradation adjacent to the project; (4) the EA does not analyze whether the impacts of dust are significant or what dust control measures will be required; (5) the EA does not analyze whether there is an

impact resulting from people straying off established trails; (6) there is no discuss of why the proposed mitigation will mitigate harassment; (7) there is no discussion if capture of butterflies for monitoring is significant; (8) the citation of the 2006 Biological Opinion is irrelevant since it analyzed a different project; (9) the EA does not discuss what 1982 mitigations would be applied or how they would mitigation impacts; (10) the EA under Alternative 2 states that take would occur, but it would not be authorized; and (11) the EA states take would not occur above baseline conditions, which is an admission that take is occurring and the Service should be taking ESA enforcement actions.

Response 75-1 to 75-2: There is no requirement under NEPA to define harassment to the level of detail the commenter is suggesting. The ESA defines harassment as “actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to breeding, feeding, or sheltering.” If approved, potential adverse affects from the proposed Amendment, including those resulting from harassment, will be analyzed to the level identified by the commenter in the Service’s biological opinion for the Amendment. The biological opinion can not be completed until the Service has reviewed all public comments on the EA. However, the EA does state that disturbance may have negative impacts on reproductive success (Service 2007, p. 4-41). “Reproduction” is a synonym for “breeding.”

Regarding the number of individual butterflies that may be affected please see our response to comment 70-3 above.

Response 75-3: The EA discusses the degradation of adjacent habitat on pages 4-

40 to 4-41 resulting from temporary disturbances.

Response 75-5 to 75-4: Regarding the impact from dust and people, the EA states that grading and construction may affect reproductive success and may create dust that could harm nearby adult and larva callippe silverspot from asphyxiation (Service 2007, p. 4-41). In addition the EA states that inclusion of dust control measures is expected to minimize these potential effects to butterflies. The EA also states, activities by residents of the new development may result in trampling or collection of callippe silverspot butterflies (Service 2007, p. 4-41). Dust control measures that will be applicable applied during construction are discussed in the EA on page 4-8 and are included in the City's conditions of approval for the project. The EA states on page 4-41 that impacts from disturbance to individuals (which includes disturbance to breeding behavior, dust, and trampling) are not significant. Measures included in the project will minimize these impacts and will provide mitigation in the form of habitat preservation and management that benefit callippe silverspots.

Response 75-6: The mitigation measures described on page 4-41 will mitigate harassment because they will ensure that callippe affected by development at the Northeast Ridge can access other, high-quality habitat for breeding and other essential behaviors, and because they will benefit the callippe silverspot and its habitat through enhanced vegetation management.

Response 75-7: Biological monitoring is already authorized by the existing HCP and is not part of the proposed Amendment. However, the commenter is correct that the statement on page 4-41 is the first and only mention of take resulting from mark/recapture studies on the Mountain. The statement in the EA is in error, there are no

mark/recapture studies planned or authorized on the Mountain. Mark/recapture studies were performed in 1981 as part of the original biological study, but have not been conducted since.

Response 75-8: The 2006 Biological Opinion is relevant to analysis of the proposed Amendment, although not determinative, because it analyzed the effects of a very similar development proposal. Please see our response to comment 71 above for more information.

Response 75-9: The EA noted throughout the document that mitigation measures in the existing HCP would continue to apply and Table 4-1 lists these measures. The existing mitigation measures do not include specific measures regarding harassment of callippe silverspot butterflies, because it was not a covered species, as such there was no discussion in this section of the EA regarding existing mitigation measures for harassment.

Response 75-10: Regarding take under Alternative 2, it does not state that take would not be authorized. Incidental take of callippe silverspot and Bay checkerspot butterflies would be authorized, because Alternative 2 includes adding both species to the ITP.

Response 75-11: The Service acknowledges the statement regarding take and baseline conditions was unclear. The statement was meant to reflect disturbances to habitat from vegetation management and monitoring activities, not to state that take of callippe silverspot butterflies has, or is, occurring as a result of management and monitoring.

Comment 76: One commenter made the following comments regarding effects on Bay checkerspot butterflies: (1) the EA does not analyze the impacts of the project on the Bay checkerspot butterfly's larval host plants; (2) the EA provides contradictory information stating that impacts on the Bay checkerspot from Alternative 1 would be similar to those impacts on callippe silverspot butterflies, but then states there would be no impact; (3) the EA states vegetation management would "open up" areas but does not state where these areas are or how it will impact the Bay checkerspot; (4) the EA claims that measures described to avoid impacts on callippe silverspot butterflies would apply to Bay checkerspot butterfly, but does not define what these measures are and the amended HCP does not include any such measures; (5) There is no discussion of what 1982 mitigation measures would apply or how these would mitigate impacts; and (6) Alternative 3 does not describe mitigation.

Response 76-1 to 76-2: As discussed in the EA, the Bay checkerspot butterfly has not occurred on the Mountain since 1984 (Service 2007, p. 1-5); therefore no take of Bay checkerspot butterflies will occur as a result of proposed Amendment. However, in the event that Bay checkerspot butterflies are reintroduced to the Mountain, the ITP will include the Bay checkerspot butterfly, which would allow vegetation management and monitoring to continue in areas where these actions may result in take of the Bay checkerspot butterfly. The commenter correctly notes that two of the Bay checkerspot butterfly's larval host plants are dwarf plantain and purple owl's clover; however since the Bay checkerspot does not occur on the Mountain and neither of these plants have any "special status" nor were they identified as such in Table 3-2 (Service 2007), impacts to

them were not analyzed.

Regarding impacts to the Bay checkerspot butterfly, the EA should have stated on page 4-42 that impacts to Bay checkerspot butterfly habitat (i.e., areas with larval host plants and adult nectar plants) would be similar to the impacts described for callippe silverspot butterfly habitat, not that take of Bay checkerspot butterflies would be similar, because no Bay checkerspot butterflies occur on the Mountain.

San Bruno Mountain contains Critical Habitat Unit 1 for the Bay checkerspot butterfly; however, Unit 1 does not include the Northeast Ridge. Therefore the 2007 VTM will not result in loss of critical habitat (Service 2007, p. 4-42 to 4-43). Vegetation management activities, as noted on page 4-43 of the EA, will impact critical habitat, but will “improve [B]ay checkerspot habitat by reducing thatch, removing exotic species that are crowding out its host plants, and increasing the quality of grasslands that support the host plants.” In addition, the BA noted on page 4-44 that in the Service’s 2006 biological opinion, the Service concluded that a similar project on the Mountain would not “appreciably diminish the value of Critical Habitat for the [B]ay checkerspot, or prevent the Critical Habitat from sustaining its role in the conservation and recovery of the species.”

Response 76-3: Management activities would “open up” grasslands by eliminating buildup of weedy species that can crowd out butterfly host plants (Service 2007, p. 4-43) and allow the host plants to recolonize these areas. The exact area where host plants may recolonize is not predictable; however, vegetation management actions will occur across the Mountain and these plants could potentially recolonize any of these areas. The measures designed to avoid impacts to callippe silverspots from management

activities are summarized in the EA on pages 4-33 to 4-34 of the EA and described in detail in the 2007 HMP.

Response 76-4: In regard to measures to avoid impacts to callippe silverspot and Bay checkerspot butterflies, the EA states on page 4-43 that "...the measures described to avoid impacts of HMP activities for the callippe silverspot would also apply to [B]ay checkerspot host plants." These measures were described earlier in the EA under "Effects on Callippe Silverspot Butterfly" on pages 4-30 through 4-42 (Service 2007).

Response 76-5: The EA states on page 4-43 that the 1982 mitigation measures identified in Table 4-1 would continue to be implemented; the EA concludes that these impacts are no significant because of continued implementation of the 1982 mitigation measures and the addition of the endowment, which would allow for enhanced vegetation management and monitoring actions.

Response 76-6: Alternative 3 is the "no action" alternative. NEPA does not require the identification of mitigation measures for the no action alternative. For additional information please see our response to comment 67-19 above.

Comment 77: One commenter made the following comments regarding effects to other listed species: (1) the EA provides contradictory information stating that impacts on mission blue butterflies and San Bruno elfins from Alternative 1 would be similar to those impacts on callippe silverspot butterflies, but then states there will be no impact; (2) it is not true that the host plants for San Bruno elfin require grassland habitat; (3) the EA can not avoid analyzing impacts to mission blue butterflies since this project has a different footprint than analyzed in 1982; (4) "host plants for Mission Blue and San

Bruno elfin butterflies have different locations and habitat from Viola [pedunculata] habitat;” (5) the EA fails to analyze the impact of the alternatives in light of the known relationship between mission blue and native species of ants since this information was not available in 1982 or 1989; (6) the EA fails to identify where the 2007 HMP will occur preventing analysis of impacts; (7) the EA does not state what minor temporary disturbances may occur during implementation or whether they are significant; (8) there is no discussion of why the 1982 and 1989 mitigation measures will continue to be implemented when they are not working; (9) the EA fails to analyze the impacts of Alternative 2 on mission blue and San Bruno elfin butterflies; (10) Alternative 2 provides contradictory information, stating there will be no impact and that impacts will be reduced by implementation of the mitigation measures in the 1982 EIR/EA; (11) and Alternative 3 does not describe mitigation.

Response 77-1: The EA does not state there will be no impact to mission blue butterflies or San Bruno elfins as a result of Alternative 1. The EA specifically states on page 4-44 that “...take of the mission blue and San Bruno elfin butterflies and their habitat would be similar to that described for the callippe silverspot since their host plants also require grassland habitat.” In addition, on the same page it states “[t]ake could also occur through direct loss of individuals during construction activities or human activities once the development is occupied.” However, the EA concludes that take of mission blue and San Bruno elfins resulting from the 2007 VTM is not significant and that take resulting from implementation of vegetation management actions is not significant because of the establishment of the endowment that allows for enhanced management

and monitoring activities which are expected to lead to improved habitat conditions (and improved population status of covered butterflies) throughout the Conserved Habitat.

Response 77-2: The comment regarding the host plant for San Bruno elfin not requiring grassland habitat is noted.

Response 77-3: Regarding analysis of impacts to the mission blue butterfly, the EA states that take of mission blue has already been authorized under the existing ITP and HCP. Thus, take authorization for mission blue is not part of the proposed Amendment. Impacts to mission blue butterflies are already authorized, and any impacts to mission blue that result from development of the Northeast Ridge parcel have been analyzed and mitigated through the design of the HCP, including the establishment of Conserved Habitat and the ongoing habitat management program. There is a different footprint of development from 1989 to 2007; however, the 2007 footprint is smaller and in lower quality habitat that proposed in 1989 and impacts on the mission blue would be reduced, not different, from those analyzed in 1989. San Bruno elfin butterflies have not been observed on the Northeast Ridge since surveys began in 1981; therefore San Bruno elfins are not further analyzed in terms of impacts of the 2007 development. Both butterflies will benefit from the increased funding for habitat management throughout the mountain that the Amendment would provide. Since the 2007 VTM would reduce the loss of habitat for the mission blue, a greater amount of conserved habitat would continue to support larvae tending ants.

Response 77-4: While the commenter is correct that the host plants for mission blue butterfly and San Bruno elfin do not have to occur in the same exactly locations as *Viola pedunculata*, often the distribution of host plants for one butterfly overlaps the

distribution of host plants for another butterfly (San Mateo County Parks 2007, p. IV-14, 18, 19).

Response 77-5: Regarding ants and mission blue butterflies, the Service is uncertain what information the commenter claims is available that the Service didn't have in 1982 or 1989. It is believed that the mission blue butterfly is a facultative myrmecophile (may benefit from, but is not reliant upon ants for food or shelter); this information was included in the Service's Recovery Plan for San Bruno Elfin and mission blue butterflies (Service 1984, p. 20). According to the Recovery Plan, this was summarized from data presented by Arnold in 1978, 1980, and 1983. In addition, Downey (1962) observed mission blue larvae being tended by ants. The only recent information regarding ants and the mission blue butterfly was presented by Wang (2007) in which he observed mission blue larva being tended by ants, which supports the existing information. The commenter did not provide information regarding ants and mission blue butterflies and the Service is not aware of any new information.

Response 77-6: Habitat management and monitoring activities under the 2007 HMP will occur throughout the HCP area, as described in the 2007 HMP itself. The 2007 HMP is included in the EA as Appendix B. The precise locations in which various management techniques will be used depend on a variety of factors and reflect the adaptive management principles discussed in the 2007 HMP.

Response 77-7: The EA states that potential disturbances to elfin and mission blue host plants from management activities are similar to those to callippe silverspot host plants, described on pages 4-32 to 4-33. These disturbances will be minimized through the measures summarized on pages 4-33 to 4-34 and mitigated through

establishment of the endowment to fund enhanced management and monitoring activities.

Response 77-8: The commenter provides no basis for concluding that existing mitigation measures “are not working.” Lack of sufficient funding has constrained management and monitoring activities by limiting the extent of these activities on the Mountain. However, where management actions have occurred, management has been effective in controlling non-native and invasive vegetation; these areas are identified on page 2-12 of the EA.

Response 77-9 to 77-10: The EA does not state that there will be no take or impacts to mission blue butterflies and San Bruno elfins under Alternative 2. The EA explains that Alternative 2 would result in impacts to habitat for both species but “[n]o host plants for the San Bruno elfin are found within the Northeast Ridge development area, however, and therefore there is no potential for take under the 2007 VTM.” The reference to the 2007 VTM is a typographical error, and should have been “under the 1989 VTM.”

Response 77-11: Alternative 3 is the “no action” alternative. NEPA does not require the identification of mitigation measures for the no action alternative. For additional information please see our response to comment 67-17 above.

Comment 78: Once commenter made the following comments regarding impacts to birds: (1) the EA fails to analyze whether the project will take nests of raptors and owls; (2) there is no mitigation for the effect of herbicide spraying on birds; (3) there is no discussion of which birds are involved or when each breeds and nests; (4) the EA fails to disclose that removal of the eucalyptus grove has already commenced prior to

completion of environmental review; (5) there is no discussion of what 1982 mitigations would be applied or how these would mitigate impacts; (6) there is no analysis of whether the vegetation management impacts are significant; (7) there is no analysis regarding drift from herbicide application that could contaminate food sources or nesting sites or that smoke from burns could disturb nests; (8) there is no discussion of whether “Mitigation Measure 2” was applied during the 2007 cutting of the eucalyptus grove; and (9) there is no discussion regarding birds that utilize brush and the impact on birds from brush removal.

Response 78-1: A list of special status birds discussed in the EA are provided on page 4-46 and includes the following raptors eagles, falcon, harrier, kite, hawks. The Loggerhead shrike is a predatory songbird that is sometimes classified with raptors and is also included in the analysis of impacts. Potential impacts to these birds and their nests, and mitigation measures for avoidance of same, are discussed in the EA on pages 4-46 to 4-47. Owls also are classified as raptors, but the EA does not discuss impacts to owls specifically because they are not identified as a special status species with the potential to occur within the project area (Service 2007, Table 3-3).

Response 78-2: Regarding herbicides, the mitigation measures discussed on page 4-47 include nesting surveys prior to construction and vegetation management within suitable habitat, and no-disturbance buffers around any active nesting sites found. These measures are applicable to all vegetation management activities.

Response 78-3: The EA describes the nesting season special status bird species as March to August (Service 2007, p. 4-47).

Response 78-4: Please see our response to comment 31 above regarding eucalyptus trees.

Response 78-5: The 1982 mitigation measures state that eucalyptus trees on other portions of the Mountain should be conserved and managed to provide nesting sites for birds displaced related by development of the Northeast Ridge (Service 2007, Table 4-1).

Response 78-6: The EA states on page 4-47 that impacts to special status birds from vegetation management are not significant with implementation of Mitigation Measure 2.

Response 78-7: The EA does not state that impacts from accidental drift of herbicides or smoke from prescribed burns without mitigation is not significant. The EA states that implementation of Mitigation Measure 2 reduces these impacts to not significant (Service 2007, p. 4-47).

Any prescribed burning plan would require biological evaluation through the HCP site activity review process, a vegetation management plan from CalFire, and adherence to air quality standards.

Response 78-8: Eucalyptus trees already removed were removed under the 1989 VTM and existing HCP, thus Mitigation Measure 2 in the EA was not in effect at that time; however, since the removal occur under the existing HCP, all applicable mitigation measures under the HCP had to be complied with during the thinning and removal of the trees.

Response 78-9: The comment regarding brush is noted; however, nests found in brush would be covered by the measures outlined in “Mitigation Measure 2: Survey and Avoidance Measures for Tree-, Shrub-, and Ground-Nesting Special-Status Birds”, which

reduces the impact to special status birds to not significant (Service 2007, p. 4-47).

Comment 79: One commenter made the following comments regarding archaeological resources: (1) the EA refers to “known” archaeological resources, but doesn’t define them; and (2) the EA states that the 1983 EIR and 1989 Addendum for cultural resources would reduce this impact to not significant, but does not state what the impact would be before mitigation.

Response 79-1: The meaning of “known” archeological resources is resources that have been identified and are known to exist within the area affected by the proposed Amendment. As noted in the EA on page 5-5 and 4-49, a records search from the Northwest Information Center of the California Historical Resources Information System concluded there were no historical resources at the site (Service 2007).

Response 79-2: Regarding analysis of impacts before mitigation, please see our response to comment 62-6 above.

Comment 80: One commenter had the following comments regarding noise impacts: (1) the EA states that construction activities might temporarily disrupt adjacent residences but not how or why these impacts are not significant; (2) the EA does not state why temporary exposure to noise above 90 dBA is not significant; (3) the EA does not state what the mitigation measures in the 1989 EIR are or how they would mitigate the impact; (4) there is no discussion of why temporary increases in noise levels are not considered significant; (5) there is no analysis of the effect of Court B and Golden Aster

court (6) “there is no discussion explaining why noise mitigation will mitigate ground borne vibration impacts;” and (7) “the 1983 EIR stated that aircraft overflight may expose residents to a CNEL of 65 dBA.”

Response 80-1 to 80-4: The EA states on page 4-54 that construction might cause temporary disruption to neighboring residences, because construction typically involves noisy activities such as earth moving and operation of heavy equipment. In addition, the EA states that these impacts are not significant because of implementation of the mitigation measures outlined in the 1989 Addendum (and identified in Table 4-1 of the EA) and adherence to the City’s Municipal Code 8.28.060. The 1989 Addendum contains noise mitigation measures that address restrictions on construction hours and practices to reduce noise emissions from construction equipment (TRA 1989, p. III-91 - III-92).

We also note that the proposed Amendment represents a dramatic decrease in noise compared to impacts authorized under the 1989 VTM, which already were found not significant with the use of comparable mitigation measures. This reduction is due to the shorter construction period, reduced number of homes, and reduced grading yardage (reduced to 325,000 cubic yards under the 2007 VTM, from 1.1 million cubic yards under the 1989 VTM). These considerations provide ample support for the conclusion that noise impacts will not be significant.

Response 80-5: Regarding Court B and Golden Aster Court, please see our response to comments 28, 34, and 39 above.

Response 80-6: Regarding ground borne vibrations from activities such as

grading and utility installation, these activities are subject to approval by the City of Brisbane. Any grading within the Northeast Ridge must adhere to the City's standards and policies. Measures to minimize noise by limiting the type and timing of use of equipment also minimize ground borne vibrations.

Response 80-7: The EA states that aircraft overflight generally increases ambient noise by approximately 5dBA to 15dBA during the daytime, with somewhat higher increases at night when ambient noise levels are lower (Service 2007, p. 4-57). The EA states that mitigation measures in the 1983 Northeast Ridge Development EIR and 1989 Addendum, regarding the incorporation of noise-reducing factors into building design, will still apply and will ensure that these impacts are not significant.

Comment 81: One commenter made the following comments regarding wastewater treatment and storm water drainage impacts: (1) the EA does not discuss the fact that the City of Brisbane's sewage is transferred to San Francisco before disposal to San Francisco Bay and that San Francisco discharges raw sewage to the Bay during wet weather events; (2) the EA fails to analyze impacts before mitigation; (3) there are no wastewater treatment mitigation measures in Table 4-1; and (4) there is no discussion of storm water exceedances currently occurring as a result of the Brookfield development, including Court B and Golden Aster Court development.

Response 81-1 and 81-4: The commenter does not provide corroboration of the claimed discharges to San Francisco Bay or storm water exceedances. The Service is not aware of any illegal discharges into San Francisco Bay resulting from development

associated with the HCP or storm water exceedances. No violations have been issued.

Response 81-2: Regarding the analysis of wastewater impacts before mitigation, please see our response to comment 62-6 above.

Response 81-3: To clarify the EA's reference to wastewater “mitigation measures”: the new residences that will be built under the 2007 VTM will create increased demand for wastewater treatment; however, this increased demand has already been met through the City of Brisbane’s contracting with the SFPUC for additional wastewater collection and treatment service capacity, as described in the 1989 Addendum. The City contracted for increased capacity sufficient to meet the demand created by the residences planned under the 1989 VTM. Since the 2007 VTM results in fewer residences being built, demand will be lower and no further mitigation is required.

The Service agrees the EA's reference to “additional facilities” as mitigation is unclear to the extent that it implies the increased demand will be met by constructing treatment facilities within Brisbane; however that demand has previously been addressed through contracting with SFPUC. In addition, the reference to Table 4-1 is in error, as the additional wastewater capacity provided for under the contract with SFPUC is not described there.

Comment 82: One commenter made the following comments regarding Chapter 5: (1) the EA concludes there will be no unavoidable impacts, but does not provide an explanation of how it reached this conclusion; (2) the EA fails to discuss how increased funding will provide long term management for the callippe silverspot when it has proven impossible to successfully propagate viola in the wild; (3) the EA has not supported its

assertion that construction activities will not result in major adverse effects on these species; (4) the conclusion in the EA regarding impacts to callippe silverspots is undermined by the omission of how many callippe silverspot butterflies, or other butterfly species, will be destroyed by the proposed Amendment; (5) there is no discussion of why the EA's claim that long term loss of grassland habitat would only affect low quality habitat that is marginally useful to the plan species; (6) the discussion of cumulative impacts is inadequate and the EA does not analyze cumulative impacts for each alternative; (7) the EA fails to analyze all connected, cumulative, and similar actions; (8) the EA does not disclose the general planning documents used in its "projection approach;" (9) the commenter quoted the definition of cumulative impacts from 40 CFR § 1508; (10) the EA omits other development on the Mountain; (11) the EA omits the fact that mission blue and callippe silverspot butterflies are extirpated from the Twin Peaks since the ITP was issued; (12) the EA omits future development activities from Brookfield identified in Chapter V and VII; (13) the EA omits that non-federal activities continue to eliminate habitat on the Mountain for the four listed butterflies; (14) the EA fails to discuss roadway and utility management; (15) no discussion of future interactions of the HMP referred to on page 2-9; the EA fails to mention the San Mateo County Park Master Plan HCP amendment; (16) there is no analysis of the cumulative impacts from air pollution, off-road vehicle use, livestock grazing, invasive exotic vegetation, and trampling from horses and hikers; (17) the EA does not adequately analyze the cumulative effect upon callippe silverspot from the Northeast Ridge phases; (18) no explanation of how it concludes that the adopted HCP inherently mitigates cumulative impacts; (19) the EA is inconsistent in that it states cumulative biological

impacts are not significant, but also states that cumulative effects of threats pose a significant impediment to the survival and recovery of the four butterfly species; (20) there are no assurances that listed species or their habitats would be conserved and recovered as stated in the EA or an explanation of how the EA reached this conclusion; (21) the EA does not quantify the number of listed butterflies that will be destroyed over time by this project nor is there a discussion of how the callippe silverspot will be recovered given the “quality of the Callippe Silverspot Butterfly involved” given it’s impossible to propagate viola in the wild; (22) the EA’s approach to cumulative impacts is improper; (23) the EA concludes there are no cumulative impacts on scenic vistas, geology, hazardous material, noise, public service, traffic, and population impacts because the majority of development has already occurred; (24) the EA does not define what non-Federal activities continue to eliminate habitat for four listed butterflies or the study area referenced on page 5-3; (25) the EA does not state which populations of the butterflies are so fragmented that extirpation of them is of significant concern; (26) the EA does not provide an explanation of how it reached the conclusion that supplementary funding from Brookfield would enhance vegetation management and viola habitat on the Mountain such that cumulative impacts would not be significant, which is contradicted by the fact that it is impossible to propagate viola in the wild; (27) the number of dwelling units and amount of Conserved Habitat is inconsistent; (28) the EA improperly treats its conclusion that impacts from Alternative 1 are less than Alternative 2; (29) the EA does not explain why temporary and irregular visual and air quality impacts are not significant; (30) the EA omits consideration of pesticides/herbicides from cumulative impacts under air quality; (31) the EA omits discussion of whether Alternative 1 or 2 will

conflict with or obstruct implantation of the applicable air quality plan; (32) the EA does not state if greenhouse gas emissions are significant or if they will be mitigated, or what alternatives exist; (33) the EA's is inconsistent regarding impacts from seismic hazards; (34) the EA's discussion on cumulative impacts on geology omits any discussion of soils or landslides and does not state what the mitigations are; (35) the EA does not explain why cumulative impacts on water quality and hydrology are not significant and it is untrue that the project would not violate any water quality standards or waste discharge requirements; (36) the EA does not address what measures are enforced by state NPDES permits; (37) the EA does not specify what noise mitigation measures would be used or why these reduce impacts to not significant; (38) the EA does not state how it concludes that cumulative public health impacts are insignificant; (39) the claim that all study area roadways and intersections are projected to operate at satisfactory levels of service is contradicted by the City of Brisbane's 2007 Addendum; and (40) the EA fails to discuss why reconfiguration of the Northeast Ridge would place a minor demand on public services but that this is not constitute a significant cumulative impact.

Response 82-1: The basis for the statement that the proposed Amendment will not result in unavoidable adverse impacts is provided by Chapter 4 of the EA, which analyzes the environmental consequences of the proposed Amendment. The Service does not believe the commenter's claims regarding the "permanent loss of a substantial portion of the Callippe Butterfly population as a result of this project" is supported based on the available science and on the findings of the Biological Study and the EA.

Response 82-2: As noted in our response to comment 71-15 above, the EA does

not rely on propagation of viola to reach the conclusion that impacts will not be significant. Predictions of habitat enhancement rely on the overall improved management of habitat that will be made possible through increased funding for management activities and addition of the species to the ITP.

Response 82-3: Discussion of impacts to the species are covered including those resulting from construction are discussed in Chapter 4 of the EA (Service 2007, p. 5-7).

Response 82-4: Regarding the number of callippe silverspots to be destroyed by the proposed Amendment, please see our response to comment 70-3 above.

Response 82-5: Regarding the lower quality of habitat in the Unit II Neighborhood II development area, please see our response to comment 71-15 above. In addition, please note that the conclusions of the EA regarding the value of habitat in the Unit II Neighborhood II development area are based upon collected data regarding viola distribution, callippe silverspot presence and other information presented in the EA and 2007 Biological Study, as well as the analysis contained in the Service's 2006 Biological Opinion, which analyzed a similar development proposal with slightly smaller impacts to callippe silverspot habitat. The commenter does not state how the "Longcore report" contravenes the conclusions of the EA, and the Service can find no evidence of such in the report. The comments of Mr. Wang are addressed separately; please see our responses to comment 94 below for additional information.

Response 82-6: The commenter's opinion regarding the adequacy of the cumulative impacts section is noted.

Response 82-7: Regarding "connected, cumulative, and similar actions," NEPA requires the analysis of all cumulative or connected *actions* in the same environmental

review document, but this applies only to *proposed, federal* actions. See 40 CFR 1508.23, 1508.25; *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976). The analysis of cumulative *impacts* must include effects of non-federal actions, but the scope of the analysis is not determined by whether the actions are “connected, cumulative [or] similar.”

Response 82-8: Regarding the planning documents used under the “projection approach” to analyzing cumulative impacts, the EA states on page 5-2 that the HCP was the primary planning document used to identify potential cumulative impacts. The HCP identifies all development that will occur in the HCP area and also discusses other threats to resources within the HCP area, particularly the threats to HCP species of concern.

Response 82-9: The commenter’s statements of law are noted.

Response 82-10: The commenter’s statement that the EA “omits other development” that should be considered in the context of cumulative impacts is inappropriate, given that the EA uses a projection approach and not a list approach to identifying potential cumulative impacts (Service 2007, p. 5-2). The projection approach uses an aggregation of projections in an adopted planning document to identify cumulative potential impacts, rather than evaluating individual projects on a disaggregated basis in identifying potential impacts. As noted above, the EA identifies the existing HCP as the primary planning document used, and it identifies and addresses the impacts associated with all development within the HCP area, as well as impacts to HCP resources caused by other federal and non-federal activities, such as those mentioned by the commenter. Please also note that there is no future development planned within the HCP area aside from the Northeast Ridge. Future versions of the

HMP will reflect the management principles set forth in the HCP and current HMP. If future iterations of the HMP result in adverse effects to Covered Species that are different from what the Service anticipated, they will require additional environmental review and subsequent authorization at that time.

In addition, the scope of cumulative impacts analysis is limited to impacts that could be evaluated meaningfully and would provide relevant information about the Amendment's contribution to impacts on resources of interest. *See* 40 CFR 1500.2(b); Council on Environmental Quality, *Considering Cumulative Effects Under the National Environmental Policy Act*, 11-20 (1997). The EA does not and is not required to analyze cumulative impacts associated with highly speculative actions or impacts.

Response 82-11: Regarding mission blue butterflies at Twin Peaks, please see Response to comment 47 above. Regarding callippe silverspot butterflies at Twin Peaks, the EA states “[f]ive colonies, including the one located at Twin Peaks in San Francisco, were extirpated (Service 2007, p. 3-12).”

Response 82-12: The HCP is designed, in compliance with ESA section 10(a)(2) and implementing regulations, to ensure that impacts of authorized development activities on HCP covered species and their habitats are mitigated to the maximum extent practicable, through conservation and management of habitat. The fact that additional funding will allow more comprehensive and intensive management of areas that are designated as Conserved Habitat under the HCP does not imply that the conservation and management of such areas is ineffective as mitigation for development of other areas within the HCP boundaries. The additional funding and enhanced habitat management will, among other things, provide mitigation for any impacts of the proposed

Amendment, including direct, indirect, and cumulative impacts.

Response 82-13: The EA states that the cumulative effects of threats from non-federal activities pose an impediment to the survival and recovery of HCP species of concern (including the four butterfly species) (Service 2007, p. 5-3). However, the proposed Amendment does not make a significant contribution to these effects (Service 2007, p. 5-2). In fact, the net effect of the proposed Amendment will be to reduce these cumulative effects through enhanced vegetation management (Service 2007, p. 5-3).

Response 82-20: Regarding assurances, the proposed Amendment provides assurances, above the existing HCP requirements, that listed species and their habitat will be conserved and recovered by ensuring that adequate funding will be available to fund habitat management activities in perpetuity and by conserving important hilltopping habitat on the Northeast Ridge.

Response 82-21: Regarding the number of callippe silverspots that will be taken, please see our response to comment 70-3 above.

The Service is uncertain regarding the meaning of the comment “quality of Callippe Silverspot Butterfly involved,” the Service assumes the commenter is referring to habitat and not individual butterflies. As discussed above in our response to comment 71, the Amendment will preserve higher quality habitat. In addition, please see the discussion of callippe silverspot butterfly habitat requirements on page 3-11 of the EA (Service 2007) and on page 17 of the Biological Study (TRA 2007).

Regarding propagation of viola, as discussed in our response to comment 71-15 and 82-2 above, the EA does not rely on propagation of viola for mitigation of impacts or for habitat enhancement. The proposed Amendment is consistent with recovery of the

callippe silverspot butterfly because the net effect of the proposed Amendment will be to reduce impacts from invasion of native and non-native vegetation into callippe silverspot habitat and individual callippe silverspot butterflies. In addition, the Amendment preserves more high quality habitat than the existing HCP on the Northeast Ridge.

Response 82-22: Regarding the EA's approach to cumulative impacts, Federal regulations define a cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions," including both federal and non-federal actions (40 CFR 1508.7). To identify and understand this "incremental impact" of the proposed Amendment it is necessary to compare the expected status of the affected environment both with and without the proposed Amendment, but with the effects of other actions accounted for. *See Gulf Restoration Network v. U.S. Dept. of Transp.*, 452 F.3d 362, 368 (5th Cir. 2006). This can be accomplished by comparing the impacts of the proposed Amendment (including cumulative impacts) with impacts under the no-action alternative. *See* 40 CFR 1502.14(d) (discussing the no-action alternative).

Response 82-23: In analyzing the cumulative impacts of the proposed Amendment, the EA takes into account the effects of the proposed Amendment, their interaction with the potential effects of other actions, and the extensive mitigation measures provided by the proposed Amendment (Service 2007, p. 5-2 - 5-8). Based on the interplay of these factors, the EA concludes that effects of the proposed Amendment would not combine with effects of other actions to cause significant cumulative impacts to the environment (Service 2007, p. 5-2); *See Bering Strait Citizens for Responsible Resource Development v. U.S. Army Corps of Engineers*, 511 F.3d 1011, 1027 (9th Cir.

2008) (finding that the Corps properly exercised its discretion in concluding that that cumulative impacts of open-pit mining projects would not be significant, because wetland restoration measures associated with the proposed Amendment would leave portions of the affected drainage in “more natural conditions than currently exist”).

Response 82-24: The “non-federal activities” the commenter refers to are defined in the same paragraph as urbanization and roadway and utility right-of-way management. The “study area” is the HCP area, sometimes referred to as the “area within the HCP boundaries.”

Response 82-25: More information about the “certain remaining populations” referred to in the EA may be found in the document that the EA refers to, the 2006 Biological Opinion. The 2006 Biological Opinion is available from the Service as part of the administrative record.

Response 82-26: As noted in our response to comment 11 and 18 above, the EA stated that the increased funding provided by Brookfield would make possible the use of more effective and comprehensive habitat management activities, allowing the habitat manager to address coastal scrub succession of grassland habitat while continuing efforts to control invasive species. This will allow the habitat manager to halt the gradual loss of grassland habitat and achieve the goal of maintaining at least 1200 acres of grassland within the HCP area (Service 2007, p. 2-9; San Mateo County Parks 2007, p. 8). This will benefit HCP species of concern that depend on grassland habitat including federally listed butterflies on San Bruno Mountain. In addition, as noted above, the EA does not rely on propagation of viola for mitigation of impacts or for habitat enhancement.

Response 82-27: The commenter is correct, the reference in the EA on pages 5-3

to 5-4 regarding the number of dwellings is incorrect; as stated in throughout the rest of the EA, the proposed Amendment will decrease the number of homes constructed on the Northeast Ridge by 80 units, not by 97 units (Service 2007, p. 2-1 - 2-4, 2-14). The comment regarding the acreage of Conserved Habitat appears to refer to page 5-6 of the EA. Under the 1989 VTM, a total of 135.7 acres within the Northeast Ridge would be dedicated as Conserved Habitat (Service 2007, Table 2-4). Under the proposed Amendment, a total of 144.66 acres within the Northeast Ridge will be dedicated as Conserved Habitat (Service 2007, Table 2-1) and is consistent with the rest of the EA.

Response 82-28: Regarding impacts from Alternative 1 and 2 please see our response to comment 61-10 above.

Response 82-29: Regarding temporary visual and air quality impacts vegetation management activities, these impacts are minor in geographic scope and intensity and are not significant in light of the context of visual resources on the Mountain. Moreover, they do not interact with or intensify other, similar effects. Therefore, the EA concluded they do not contribute to a significant cumulative effect. The temporary and sporadic effects on air quality from vegetation management activities would not contribute to a significant cumulative effect, because they must remain in compliance with air quality standards, smoke management plans, and other regulations that are specifically designed to address air quality impacts in the aggregate.

Response 82-30: Regarding pesticides, please note that use of pesticides (i.e., insecticides, rodenticides, and fungicides) are prohibited within Conserved Habitat according to the existing HCP. Limited herbicide use within Conserved Habitat may be implemented in select locations if it is not likely to result in incidental take of listed

species and is used in accordance with the label. For additional information regarding pesticides, please see our response to comment 64-5 above.

Response 82-31: Contrary to the commenter's statement, the EA on page 4-7 states that the proposed Amendment will not conflict with or obstruct implementation of applicable air quality plans. The EA explains that the 2007 VTM is consistent with growth anticipated under the City's General Plan and falls within the population projections prepared by the Association of Bay Area Governments. Since the BAAQMD's air quality plans are based on local General Plans and the projections and assumptions they contain, consistency with these local plans generally ensures consistency with the applicable air quality plans. In addition, the vegetation management and monitoring activities are consistent with air quality plans because they will incorporate all relevant BAAQMD control measures identified in the 2000 Clean Air Plan (Service 2007, p. 4-7).

Response 82-32: Regarding greenhouse emissions, the EA states "[t]here would not be a significant contribution to a cumulative effect" under the category of air quality and climate. Air quality impacts will be mitigated by those measures discussed in Chapter 4.

Response 82-33 to 82-34: Although seismic "hazards" exist at the project site in the form of potential seismic ground shaking events, etc., all development under the proposed Amendment will be subject to measures to ensure that adverse effects of these potential hazards are mitigated (Service 2007, p. 4-11, 5-4). Although the potential for seismic shaking, landslides, etc., does exist at the Northeast Ridge site; however, as noted in the EA structures will be constructed in accordance with state and local building codes

that require measures to reduce impacts from potential seismic events (Service 2007, p. 4-11). Thus, the proposed Amendment will not contribute to a significant cumulative effect. The EA also states that any effects related to erosion and related hazards during grading will be temporary and mitigated, as will potential landslide hazards. These effects therefore will not contribute to a significant cumulative effect. The mitigation measures are discussed in Chapter 4.

Response 82-35: The EA explains that the proposed Amendment has the *potential* to cause water quality impacts from sedimentation, etc., but that this potential will be mitigated by measures enforced under the state NPDES permits for storm water construction management, which are designed to address erosion and sedimentation and to minimize cumulative effects from non-point sources related to construction. With these measures in place, the EA concluded the proposed Amendment will not contribute to significant cumulative effects on hydrology and/or water quality. Regarding violations of water quality standards, please see our response to comment 81 above.

Response 82-38: Regarding noise mitigation, the impacts from noise are discussed on pages 4-55 through 4-57 of the EA, and mitigation measures are identified in Table 4-1. Please also see our response to comment 80-2 above.

Response 82-39: Any prescribed burning or pile burning must occur, in compliance with applicable local and state measures designed to minimize the risk of wildfire, including the issuance of a burn plan by California Department of Fire (CalFire). Burning also would require assistance from CalFire and/local fire departments (Service 2007, p. 5-6). Thus, the EA concluded that the proposed Amendment will not cause a significant impact to public health hazards.

Response 82-40: Regarding intersections and roadways, the commenter did not identify information in the City of Brisbane's 2007 Addendum that contradicts the EA; however, the traffic information contained in the EA is based on the information contained in the 2007 Addendum.

Response 82-41: Development of the Northeast Ridge under the 2007 VTM would not make a considerable contribution to a cumulative impact on public services because it would not require the construction of new facilities; because it would maintain large areas as open space, which does not place a high demand on public services; and because the moderately increased demand for certain public services will be offset by payment of impact fees and donations of land by Brookfield for construction of new schools and parks as well as mitigation measures in Table 4-1. These mitigation measures are discussed on pages 4-62 through 4-68 (Service 2007).

Comment 83: One commenter resubmitted comments originally submitted as part of the NEPA scoping process in 2004.

Response 83: These comments were considered and addressed in the preparation of the EA. To the extent that the comments are relevant to analysis contained in the EA, they are fully addressed by the responses to same commenter's extensive remarks regarding the EA's compliance with NEPA, and are addressed in our responses to those remarks in our response to comments 1 through 82 above.

Comment 84: One commenter stated that the EA relies entirely on the

conclusions and analysis in the 1982 EIR/EA and 1989 Addendum to conclude that impacts resulting from surface runoff, water quality degradation, and erosion and siltation are not significant and that no mitigation measures were proposed for surface runoff or water quality. In addition, the commenter stated that the mitigation measures proposed in the documents are not sufficient to support a finding of no significant impacts on water quality from erosion and sediment because the mitigation measures do not include most standard Best Management Practices (BMPs) contained in current Stormwater Pollution Prevention Plans (SWPP).

Response 84: The EA does not rely exclusively on the findings of the 1982 EIR/EA or 1989 Addendum. The proposed Amendment is required to comply with measures applicable under National Pollution Discharge Elimination System (NPDES) permits (Service 2007, p. 5-4), state (State Construction General Permit Order No. 99-08-DWQ) and local measures (City of Brisbane's municipal code provisions and post-construction BMP) for storm water management, which implement the terms of the City's own NPDES permit (available at: http://www.waterboards.ca.gov/stormwtr/docs/san_mateo_99_059.pdf) for its Municipal Separate Storm Sewer System. These require the preparation of a SWPPP and implementation of BMPs to control erosion and sedimentation during construction, and implementation of post-construction BMPs that meet contemporary standards. The intent is to reduce sediment and stormwater turbidity to low levels. The commenter's remarks concerning impacts on Brisbane Lagoon from previous construction on the Northeast Ridge are unsubstantiated.

Finally, we note that the revised 2007 VTM for the Northeast Ridge substantially reduces the amount of construction and grading involved in the Project, and the amount of erosion and sediment produced, compared to the project authorized under the 1989 VTM, which was found not to have significant water quality impacts.

Comment 85: One commenter submitted a letter they had submitted to the Mayor of the City of Brisbane stating the City “must not certify” the 2007 Northeast Ridge Unit II Addendum on the basis that the project will have significant adverse effects under CEQA.

Response 85: The comment letter addresses the certification of the 2007 Addendum to the EIR for the Northeast Ridge project. As such, it was considered during the CEQA approval process and is not directly relevant to the consideration of the project under NEPA. To the extent that the substantive remarks contained in the letter are relevant to consideration of the project under NEPA, they have been addressed in the response to the commenter’s previous comments 1 through 84 above.

Comment 86: One commenter made the following comments: (1) the original EIR was deeply flawed, that the HCP is not working, and after 25 years of failure the callippe silverspot is now a fully endangered species; (2) an EIS should be prepared as there is no analysis of impacts on the existing environmental setting; (3) a “properly conducted environmental study” should be prepared to identify problems in the existing HCP and how to correct them; (4) why it is safe to build houses on an earthquake fault

determined to be unsafe in 1989; (5) urban development is a threat to the species and the proposed amendment will authorize killing of the callippe silverspot; (6) viola habitat can not be replaced and “throwing more money” at the problem will not solve it; (7) the commenter objected to “rewarding such malfeasance with more money;” and (8) supported an alternative that excludes further building on callippe silverspot habitat.

Response 86-1: The commenter’s opinion regarding the EIR/EA is noted. The commenter’s opinion regarding the success of the HCP is also noted. However, as the Service stated when it listed the callippe silverspot as endangered, there is no evidence to indicate that the callippe silverspot is declining as a result of the HCP (Service 1997, p. 64306, 64310). In addition, the Service disagrees with the commenter’s assertion that the HCP is not working. The Service believes the objectives intended to be met by the HCP were sound, but have not been implemented in the manner anticipated due to restrictions in funding. Funding is the limiting factor, not that the actual HCP.

Response 86-2: Regarding the preparation of an EIS, please see our response to comments 8, 11, and 67-19 above. Regarding the adequacy of the EA, the commenter’s opinion is noted. The impacts of the proposed Amendment are analyzed in Chapters 4 and 5 of the EA. Regarding the environmental baseline for analysis, please see our response to comment 11 above.

Response 86-3: Regarding a “proper environmental study,” the EA, has been performed to assess the potential effects of the proposed Amendment. The purpose of the EA is not to analyze the efficacy of the HCP or to develop new habitat management techniques. Habitat management is guided by the HMP, which incorporates adaptive

management principles to assess the results of management techniques and make changes as necessary to achieve management goals. As noted in the EA, management actions have been limited in scope due to lack of funding, but that habitat islands have been successfully created in Conserved Habitat (Service 2007, p. 2-12).

Response 86-4: Regarding seismic hazards to the proposed Northeast Ridge development, they are discussed in the EA on pages 4-11. The EA explains that risks from seismic events will be mitigated by compliance with state and local building codes, which include measure to address seismic hazards.

Response 86-5: The commenter is correct that the proposed Amendment will authorize incidental take of callippe silverspot butterflies resulting from construction on the Northeast Ridge; however, the commenter incorrectly implies that urban development is the sole threat to the survival of the callippe silverspot butterfly. When the Service listed the callippe silverspot as endangered, we identified multiple threats to the species, including urban development, illegal butterfly collection, loss of habitat to invasive plant species, and excessive livestock grazing (Service 2007, p. 64306, 64307). On San Bruno Mountain, habitat loss from invasive plants and coastal scrub succession are the primary threats to the species. In addition, in order to conserve grassland habitat and the listed butterflies that rely on them, the proposed Amendment will authorize some incidental take of callippe silverspot butterflies resulting from vegetation management. The small amount of incidental take resulting from vegetation management activities is expected to be outweighed by the benefits of improved habitat, which in turn will increase the number of listed butterflies on the Mountain.

Response 86-6 to 86-7: As noted in our response to comments 71-15 and 82-2

above, the EA does not rely on propagation of viola for mitigation of impacts. The increased funding for habitat management provided under the proposed Amendment will allow greater control of invasive species and coastal scrub, which will benefit viola habitat as well as the callippe silverspot butterfly and other HCP species of concern, as explained in the response to comment 18. The commenter's opinions regarding the adequacy of mitigation and the success of the HCP are noted. The provision of additional funding for habitat management is not a "reward" to the HCP Operator and Trustees; it is a mitigation measure designed to support the conservation purposes of the HCP.

The funds provided by the endowment will be used primarily for control of invasive species and coastal scrub, as described in the 2007 HMP. Regarding the callippe silverspot's ability to "survive further loss of habitat," the Biological Study concluded, based on the best scientific and commercial information currently available, that the proposed Amendment will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. Further, as noted in our response to comments 4 and 47 above, if authorized the Service will be required to prepare a biological opinion on the proposed amendment, including an analysis of whether the project is likely to jeopardize the continued existence of any federally listed species affected by the proposed Amendment. If the Service's biological opinion determines the project will jeopardize any federally listed species, the project must be revised and incorporate "reasonable and prudent alternatives" in order to remove jeopardy. The loss of viola habitat will be minimal and less than is likely to be lost to natural succession in the next one to two years if management activities are not increased, based on an annual loss of 5 acres per year from 1982 to 2004 (Service 2007, p. 2-14; San Mateo County Parks 2007, p. 2, 8, II-2,

III-2). These impacts will be offset by the endowment and the dedication of higher quality Conserved Habitat on the Northeast Ridge (Service 2007, p. 1-4; TRA 2007, p.17, 46).

Response 86-8: Regarding the commenter's proposed alternative of no further building in callippe silverspot butterfly habitat, please see our response to comment 9 above.

Comment 87: One commenter made the following comments: (1) that the proposed Amendment will result in the loss of "irreplaceable habitat that is essential to the survival of a species..." and authorizes killing of the callippe silverspot and Bay checkerspot butterflies; (2) the proposed take is not incidental and could result in the permanent extirpation of callippe silverspot butterflies on the Mountain and ultimately extinction; (3) the commenter stated a portion of the Service's mission statement as well as identified objectives on the Service's website; (4) the Amendment is based on bad ecological principles and scientific methodology; (5) the "trade-off" of habitat containing 500-1500 viola plants per acre with habitat that has 250 plants per acre is not satisfactory and that the estimated density of viola habitat lost is based data several years old and averages from 3 nonconsecutive years; (6) the success of the HCP to date has been limited; (7) the seven island habitats created to date have not been successful; (8) the commenter made several comments regarding the lack of success in establishing viola habitat; (9) the commenter stated we "cannot give up on conservation efforts and habitat maintenance" on the Mountain; (10) the \$4,000,000 endowment would help the HCP, but the "trade-off" is not sufficient to ensure the survival of the callippe silverspot; (11) the

2007 VTM only “look[s] good in comparison” to the 1989 VTM because the 1989 VTM is unacceptable given the existing conditions; (12) the cost of relocating the PG&E towers would make relocating them highly unlikely; (13) the listing of the callippe silverspot is a critical change in condition; (14) the failure of the HCP has caused the callippe silverspot “to deteriorate from a ‘species of concern’ to ‘endangered’ because the HCP was “inadequate, untested, and grossly under-funded...;” (15) the commenter quoted text from the species account for the callippe silverspot butterfly developed by LSA for the Solano county HCP/NCCP stating the primary cause of decline of the callippe silverspot butterfly is the loss and degradation of habitat; (16) the commenter stated thinning of Eucalyptus trees may have some benefits to callippe silverspots, but “wholesale destruction” of host plants and dividing populations will not; (17) designating Guadalupe Canyon Parkway as the main flyway between callippe silverspot populations is not a viable alternative; and (18) the commenter requested the Service “deny any further take permits for the callippe silverspot on San Bruno Mountain.”

Response 87-1: As described in the EA and Biological Study for the proposed Amendment, the loss of habitat under the 2007 VTM will be minimal. The EA notes there is an average of 133.5 acres of viola habitat on the Mountain of which 24.8 acres are on the Northeast Ridge (Service 2007, p. 4-30). The proposed Amendment is estimated to remove between 3.0 and 4.4 acres of viola habitat, which represents a loss of 2.2 to 3.3 percent of viola habitat on the Mountain.

Response 87-2: Regarding the take not being incidental, incidental take is defined at 50 CFR §402.02 as “take of listed fish and wildlife species that results from, but is not

the purpose of, carrying out an otherwise lawful activity by a Federal agency or applicant.” The purpose of the project is to construct residential homes and associated infrastructure on the Northeast Ridge, not to take listed species. However, the commenter is correct that the purpose of amending the ITP is to authorize incidental take of callippe silverspot and Bay checkerspot butterflies that would result from construction of the 2007 VTM and vegetation management activities on the Mountain.

The 2007 Biological Study concluded, based on the best scientific information currently available, that the proposed Amendment will not appreciably reduce the likelihood of the survival and recovery of the species in the wild (TRA 2007, p. 46). In addition, as noted in our responses to comments 4, 47, and 86 above, pursuant to section 7(a)(2) of the ESA, Federal agencies are required to insure their actions are not likely to jeopardize the continued existence of any endangered or threatened species. Since amending the section 10(a)(1)(b) permit is a Federal action, the Service is required to conduct an Intra-Service consultation that will result in the preparation of a biological opinion (50 CFR 402.14(c)).

Response 87-3: The statement regarding the Service’s objectives is noted.

Response 87-4: The commenter’s general statements regarding the methodology and information supporting the proposed Amendment are noted but are too generalized to receive a specific response, but specific criticisms are addressed below.

The Habitat Restoration Guidelines to which the commenter refers are included in the HMP as an aid to habitat restoration activities. Habitat restoration in temporarily disturbed areas is a condition of the HCP. However, habitat restoration is not relied upon solely as mitigation for impacts to viola habitat that are caused by the proposed

Amendment.

Response 87-5: The “trade off” referred to is the establishment of habitat islands in Conserved Habitat as a substitute for restoring habitat on graded slopes that are too steep to allow successful restoration of grasslands and/or viola. Neither the restoration of graded slopes nor the creation of habitat islands is mitigation for impacts to viola habitat resulting from the proposed Amendment. Restoration is a separate and independent obligation of the existing HCP.

Regarding use of average viola distribution to estimate the amount of habitat lost, the year-to-year variability in viola habitat acreage is precisely the reason that the EA relies on average figures derived from multiple years of measuring viola habitat acreage and density.

Response 87-6: The commenter’s opinion regarding the success of the HCP is noted. However, as noted above, the EA does not rely on creation of viola habitat for mitigation of impacts for the conclusion that the proposed Amendment will not jeopardize the survival of the callippe silverspot.

Response 87-7: The Service notes the commenter’s statement that habitat islands have not been successful. However, as noted above, the EA does not rely on creation of viola habitat as mitigation for the proposed Amendment.

Response 87-8: Regarding success in establishing viola habitat, please see our response to comments 71-15 and 82-2above.

Response 87-9: The commenter’s statement regarding not giving up on conservation efforts or habitat management is noted. The Service, HCP Operator, nor the Trustees have any intention of giving up on conservation efforts or on habitat

maintenance on the Mountain.

Response 87-10: The commenter appears to imply that the HCP alone should recover the callippe silverspot butterfly and that Brookfield in particular should provide the funding necessary to do so. Neither the San Bruno Mountain HCP nor Brookfield have the sole responsibility of ensuring the continued existence of the callippe silverspot butterfly, since San Bruno Mountain does not provide habitat for the only extant population of callippe silverspot butterflies. The endowment funding is mitigation for the remaining development on the Northeast Ridge, not for impacts associated with the entire HCP; however, the endowment should provide sufficient funding to enhance vegetation management activities in much of the HCP. For additional information, please see our response to comment 88 below.

The commenter's opinion regarding the benefits of the HCP Endowment for species of concern is noted. Please see our response to comment 18 above for additional information.

Response 87-11: The commenter's opinion of the 1989 VTM notwithstanding, the 1989 VTM is a legally valid development plan that confers vested rights on Brookfield. Comparing the proposed Amendment to these existing development rights is not "obfuscation;" it is a logical since those actions are already part of the existing HCP. For additional information, please see our response to comment 61 above.

Response 87-12: The commenter's opinion regarding the cost of relocating the PG&E power lines is noted.

Response 87-13: The listing of the callippe silverspot as endangered is a change in the legal status of the species; however, the HCP was designed to protect and conserve

the callippe silverspot, as the callippe silverspot is one of the HCP species of concern for whose benefit the HCP was designed (since the callippe silverspot was originally proposed for listing prior to finalization of the HCP). The commenter's opinions regarding the viability of further development and the effect of granting permits that allow destruction of callippe silverspot habitat are noted but are contradicted by the facts concerning the proposed Amendment. The 2007 VTM will avoid high value callippe silverspot habitat and minimize the development footprint of the Northeast Ridge, while dedicating additional land to Conserved Habitat. In addition, the proposed Amendment will greatly enhance funding for HCP habitat management. As a result, the Biological Study concluded that the proposed Amendment will not appreciably reduce the likelihood of the survival and recovery of the species in the wild, loss of this habitat will be minimal, and will be mitigated by the endowment and the conservation and dedication of additional high value Conserved Habitat (TRA 2007, p. 46). Further, as noted in our responses to comments 4, 47, and 86 above, the Service's biological opinion must conclude the project will not jeopardize the continued existence of any federally listed species adversely affected by the Amendment.

Response 87-14: Regarding the HCP being the cause of the callippe silverspot butterfly's decline and leading to its listing, the Service stated in the rule listing the callippe silverspot that there is no evidence to support the commenter's claim (Service 1997, p. 64306, 64310). In addition, the HCP's annual monitoring does not support the commenter's claim. The annual monitoring has included the callippe silverspot butterfly since 2000 and while the population shows year to year variability, over time the population has remained consistent (TRA 2007c, p. 9). Further, according to the annual

monitoring reports, the HCP has been “succeeded in protecting approximately 90% of the butterfly habitat on San Bruno Mountain (TRA 2007c, p. 10). However, the Service does agree that the HCP has been underfunded to date, but the endowment provided as a result of the proposed Amendment will allow for enhanced vegetation management over more of the Conserved Habitat.

Response 87-15: Regarding the information in the July 2004 LSA report, the report does not does not contain specific information applicable to the San Bruno Mountain, its HCP, or preservation of 21.2 acres of high value hilltop habitat as part of the 2007 VTM. Urbanization on San Bruno Mountain is not the primary threat to the callippe population on San Bruno. As noted in our response to comment 86 above, the primary thread to callippe silverspot butterflies on the Mountain is invasion of non-native vegetation and coastal scrub. As noted above, the Biological Study concluded that the proposed Amendment will not appreciably reduce the likelihood of the survival and recovery of the species in the wild (TRA 2007, p. 46) and the Service’s biological opinion must also conclude the Amendment will not jeopardize the continued existence of the species.

The effects of the 2007 Infrastructure grading and the construction of six lots at Court B are discussed in the EA on pages 2-3 to 2-4 and 4-25 to 4-30 and above in our responses to comments 28, 34, and 39.

Response 87-16: The thinning of the eucalyptus trees occurred in after the Habitat Manager determined, and the Service concurred, that the activity would not result in incidental take of callippe silverspot butterflies. Additional thinning will occur under the 2007 VTM, but no impacts to callippe silverspot habitat will occur as a result. This

activity will not divide host populations; to the contrary, the eucalyptus trees are considered a partial barrier to callippe silverspot movement. In addition, use of the eucalyptus grove as part of the development area allows the preservation of 21.2 acres of high value hilltop habitat for the benefit of the callippe silverspot.

Response 87-17: Guadalupe Canyon Parkway has not been “designat[ed] . . . as the remaining primary flyway for callippe.” Although callippe silverspot butterflies are high flyers and are capable of using the Parkway as a flight corridor, the 2007 VTM preserves habitat between the Northeast Ridge and the Parkway, and on the west side of the Northeast Ridge, in order to maintain a movement corridor that allows callippe silverspot migration to and from nearby population centers without the use of the Parkway.

The ESA requires federal agencies to rely on the best scientific and commercial data available in determining whether their actions are likely to jeopardize the survival of a listed species. It does not require that new scientific research be performed to refute the claims of project opponents or that decision making be postponed until the survival of endangered species can be guaranteed. Moreover, the success of the HCP and the survival of the callippe silverspot do not depend upon recreation of callippe silverspot habitat. The HCP is designed primarily to conserve existing habitat and protect existing populations of listed species. The Biological Study has found that the proposed Amendment is consistent with those goals (TRA 2007, p. 44).

Response 87-18: It is not clear what the commenter is referring by requesting the Service “deny any further take permits for the callippe” since no incidental take permits have been issued for callippe silverspot butterflies on the Mountain; however, the

issuance of any incidental take permit would have been subject to the requirements of section 7 or section 10 of the ESA. The proposed Amendment will result in the loss of fewer listed butterflies over time than the No Action Alternative, because it will allow enhanced vegetation management to combat succession of grassland habitat and invasion by non-native species, both of which reduce the amount of habitat available for grassland dependent butterflies including the callippe silverspot butterfly.

Comment 88: One commenter provided the following comments: (1) the claims in the EA that habitat restoration could not take place without this Amendment and that no HMP would be implemented are false; (2) an ITP could be issued solely for habitat restoration, without development; (3) a “Stewardship ITP” should have been an alternative in the EA; (4) the claim that habitat islands have been successfully created is false and was disputed by the TAC; (5) the conclusion in the biological study that the HCP has been successfully implemented and no further assurances are required is contradicted by the EA, which states continued habitat management under the no action alternative and the 1989 VTM would have significant negative impacts; (6) habitat islands are not a viable solution to habitat destruction because viola can not be successfully propagated; (7) the Amendment relies on the same failed strategy that has resulted in the loss of 600 acres of habitat on the Mountain and trading more endangered species habitat for money will not be effective; (8) the EA and biological study does not provide evidence that movement and fragmentation resulting from the project will not be significant; (9) the 2007 Biological Study’s statement that development near Guadalupe Canyon Parkway will not be a significant barrier is false as well as the statement that

areas temporary graded can be restored to provide hilltop habitat; (10) the conclusion that Guadalupe Canyon Parkway “will be the backbone of a flight corridor and prevent habitat fragmentation;” (11) will ITP from car strikes be covered; (12) the commenter made several comments regarding the EA’s reliance on “faith” of Brookfield’s future performance to conclude there are no significant impacts and provided examples of the existing “track record;” and the EA states impacts to callippe silverspot will be mitigated to not significant by actions taken by Brookfield, which to date has had a poor environmental record; and (13) the commenter made several comments regarding the adequacy of the \$4,000,000 endowment including that the funding plan is inadequate.

Response 88-1: The EA does not imply that no HMP would be implemented in the absence of the proposed Amendment. Habitat management has occurred pursuant to various management plans since the inception of the HCP and would continue into the future. However, the EA correctly states that certain types of management activities cannot take place in callippe silverspot habitat without authorization for incidental take if incidental take of callippe silverspot butterflies would be likely to occur.

Response 88-2: In order to issue an amended ITP to cover incidental take associated only with vegetation management, the Applicants of the HCP would have to propose such an amendment. To date the Applicants have not proposed such an amendment.

Response 88-3: The “stewardship” alternative proposed by the commenter would not address the existing development rights of Brookfield under the existing HCP. The commenter appears to be of the opinion that development should not be allowed on San

Bruno Mountain. This position is not compatible with the existence of the HCP. Section 10 of the ESA, as originally enacted in 1973, authorized permits for the taking of listed species by non-federal entities only under very limited circumstances. The permitting provision was not flexible enough to address situations in which a private landowner's otherwise lawful activities might result in limited incidental take of listed species, even if the landowner was willing to plan activities carefully to be consistent with the conservation of the species. As a result, Congress amended the ESA in 1982 to authorize the issuance of permits for incidental take of listed species in accordance with an approved Habitat Conservation Plan (HCP). The program was modeled after the San Bruno Mountain HCP. By minimizing and mitigating the impact of the permitted incidental take, HCPs contribute to the long-term conservation of both listed and unlisted species. The need for an HCP arises when a non-federal entity's otherwise lawful activities result in incidental take of a federally listed animal; therefore, every HCP is associated with some level of incidental take.

Response 88-4: The EA does not state that all habitat islands created to date have been successful nor does it state that habitat islands are created solely to benefit the callippe silverspot butterfly; it only states that some have been successful (Service 2007, p. 2-12), as confirmed by the commenter's statement regarding continued funding of two islands by the TAC in 2007. In addition, as noted in the 2007 HMP, habitat islands were created for mission blue butterfly and it is unknown whether the approach is appropriate for callippe silverspot butterflies (San Mateo County Parks 2007, p. 2). Finally, the existing HCP includes an adaptive management component, guided by the TAC, which allows for alterations to management strategies as new information becomes available,

including the benefits of habitat islands to listed species.

Response 88-5: The 2007 Biological Study concluded that no further assurances were required to ensure that the mitigation program described in the proposed Amendment would be implemented (i.e., that increased habitat management will occur as described in the 2007 HMP); this conclusion is amply supported by the successful implementation of habitat management activities to date.

The “significant negative impacts” associated with Alternatives 2 and 3 are not caused by a failure to implement the activities prescribed by the HCP and habitat management plans, nor are they due to the way habitat management “has been done over the past 25 years.” The negative impacts are related to the scope and intensity of habitat management activities, which are constrained by the current level of funding. At existing levels of funding, gradual loss of grasslands to coastal scrub succession will continue within the HCP area (Service 2007, p. 4-27). In addition, Alternative 3 would limit use of certain management activities because it would not authorize take of the callippe silverspot butterflies incidental to habitat management activities (Service 2007, p. 2-15). Alternative 3 would also prevent habitat management activities from occurring on the Northeast Ridge parcel, because the parcel would not be developed and access to the parcel would be limited to the landowner and vegetation management for listed butterflies in these areas would not occur (Service 2007, p. 2-15). Under the proposed Amendment, by contrast, incidental take authorization will be provided for management activities, and the HCP Endowment will provide funding for the Habitat Manager to address both invasive species and grassland conversion simultaneously.

Response 88-6: Regarding habitat islands and creation of callippe silverspot

butterfly habitat, as noted in our responses to comments 71 and 82, neither EA nor the Biological Study rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss. Restoration of temporarily disturbed areas is an independent requirement of the HCP. As the Biological Study states on page 27, “analysis of the effects of the proposed development of the 2007 VTM on the callippe silverspot assumes there are no beneficial effects resulting from the [restoration or] transplantation” of viola. In addition, as noted above, habitat islands have been successful for mission blue butterflies, but it is not known if these will be appropriate for callippe silverspot butterflies.

Response 88-7 to 88-7: The commenter's opinions regarding the success of the HCP and the character of the proposed Amendment are noted. Contrary to the commenter's statements, however, the amendment does not propose to use the increased HCP funding solely for habitat restoration. Approximately 122 acres of grassland have converted to coastal scrub over the life of the HCP (TRA 2007, p. 25). Consistent with the principles of adaptive management, the 2007 HMP includes measures designed to halt and reverse this loss of grassland habitat. The 2007 HMP also sets as a goal to maintain grassland habitat acreage between 1200 acres (the approximate current level) and 1800 acres. As discussed in the 2007 HMP and the EA, the endowment will provide additional resources to help achieve this goal by combating both coastal scrub succession and invasive species.

As the EA states on page 1-2, since adoption of the HCP, approximately 308 acres of the Mountain have been developed, 276 acres are comprised of the quarry (150 acres) and Brisbane Acres (126 acres), and 2,828 acres have been dedicated as Conserved

Habitat. There are 3,537 acres within the HCP boundaries and the amount of Conserved Habitat to date represents approximately 80% of this land.

The commenter appears to imply that no loss of habitat should be permissible. However, this is not consistent with existing law. The ESA explicitly allows for some incidental take (including habitat modification or degradation) through section 7 and section 10, subject to certain conditions. If the commenter's statement were true, there would be no need for an HCP.

Moreover, the EA and the 2007 Biological Study discuss in detail why the loss of callippe silverspot butterfly habitat related to the proposed development on the Northeast Ridge will not have significant adverse effects. As the 2007 Biological Study explains, the net effect of the proposed Amendment on callippe silverspot habitat will be beneficial. Although development under the 2007 VTM will result in loss of some habitat, the impacts to existing habitat will be reduced compared to the 1989 VTM or any of the alternative actions analyzed, higher quality hill topping habitat will be preserved than is being developed, and the increased funding provided by the HCP endowment will allow for improved management and preservation of existing callippe silverspot habitat, including more effective measures to combat loss of grassland habitat to coastal scrub succession and invasive species.

The experimental efforts to restore or create viola habitat in “habitat islands” do not contradict the basic approach of the HCP and HMP. If successful, these efforts would add value to the Conserved Habitat. However, the Service and HCP Operator both recognize that management and conservation of existing habitat is the primary way of ensuring the success of the HCP's mission (San Mateo County Parks 2007, p. 1); this has

always been the approach taken by the HCP Operator.

Response 88-8: Regarding fragmentation and population isolation, one of the goals of the Amendment is to reduce and consolidate the amount of development on the Northeast Ridge. Development under the 2007 VTM eliminates Unit II-Neighborhood I and results in a larger area of contiguous Conserved Habitat on the Northeast Ridge. Impacts to callippe silverspot habitat under the 1989 and 2007 VTM are depicted in Figures 6a – 7c (note Figure 6a should read “2000 Viola Distribution and Estimated Impacts of 1989 VTM”) of the Biological Study (TRA 2007, p. 56-61). As explained in the EA on pages 4-36 and 4-37.

The commenter's opinion regarding the likely success of restoration efforts is noted but is unsubstantiated. The reference to unspecified slopes in the area does not support the conclusion that restoration of temporarily disturbed slopes in connection with the proposed Northeast Ridge development cannot be successful.

Response 88-10: The EA does not state that the Guadalupe Canyon Parkway is the “backbone” of a flight corridor for the callippe silverspot butterfly. The EA states that callippe silverspot butterflies use, and are expected to continue to use the habitat on either side of the Parkway and have been observed crossing the Parkway (TRA 2007, Figure 8 p. 62). These areas are expected to continue to connect habitat on the Northeast Ridge with other areas (i.e., the saddle, etc.) and these area will be maintained as Conserved Habitat (Service 2007, p. 4-37). The Service is not aware of any “scientific data” that the commenter references that contradict the observed movement of callippe silverspot butterflies crossing the Parkway.

Response 88-11: Incidental take of callippe silverspot butterflies resulting from

vehicle strikes is not proposed for coverage under the Amendment.

Response 88-12: The EA does not rely on “faith” in Brookfield's environmental performance to conclude that the proposed Amendment will not result in significant environmental effects. All mitigation measures relied on in the EA are incorporated into an enforceable agreement or permit condition, such as the City Conditions of Approval. Moreover, the commenter has provided no evidence of the stated violations. To date, Brookfield has complied with all requirements of the HCP and cooperated with the Service and made significant voluntary efforts to preserve listed species, including modifying the Northeast Ridge development to minimize impacts to listed species and their habitat.

The commenter's opinion regarding the performance of stormwater BMPs at the Northeast Ridge site is unsubstantiated. Brookfield has obtained coverage for the project under the Construction General Permit and has implemented BMPs to control storm water discharges. The City has inspected the site regularly and has issued no violations to Brookfield.

Regarding alterations to homes, the commenter appears to refer to the modification of the home at 10 Huckleberry Court, which is located within Unit I, Neighborhood II. The modification to the home retains the existing forty-two feet of rear yard setback; the addition does not extend to the existing rear of the house. However, this has no applicability to existing butterfly corridors, as the corridor is not located at the rear of these homes. The residence at 10 Huckleberry Court abuts the Landmark at the Ridge Owners Association (the “Association”) common area lot, which is not considered by the City, the Service, or the County as a part of the butterfly corridor or wildland

interface area.

Regarding chorus frog habitat, similar to the “backyard butterfly corridor” referred to above, the Riparian Corridor within the Northeast Ridge project was not designed or intended by Brookfield, the City, the County, or the Service to provide chorus frog tadpole habitat. As noted by the commenter, the area was designed as riparian corridor/walkway. The home owner’s association owns the majority of the Riparian Corridor areas and is responsible for their maintenance. Brookfield is not responsible for activities taken with regard to the corridors by the home owner’s association.

Regarding the removal of eucalyptus trees, please see our response to comment 31 above.

Regarding Brookfield’s commitments referred to in the EA, these are Brookfield’s legally binding obligations under the proposed Amendment and related development approvals.

Response 88-13: Regarding adequacy of funding, the Service will make a determination as to whether the proposed endowment is sufficient to minimize and mitigate the impacts of the Amendment in our “Findings and Recommendation” document that is prepared once we have reviewed public comments; however, the Service is not required to make a new finding regarding funding of the entire HCP. The proposed Amendment includes only the authorization of incidental take of the callippe silverspot and Bay checkerspot butterflies, the modifications to the Northeast Ridge development approvals and operating plan, and the mitigation for these impacts to callippe silverspot and Bay checkerspot butterflies through additional funding. It does

not include the HCP in its entirety. The Service will make its determination and findings regarding the Amendment, including whether it provides adequate funding, once it has completed review of all public comments. However, the establishment of the endowment for the proposed Amendment is expected to be adequate to support additional management activities that will increase protections for HCP species of concern.

Overall funding under the amended HCP is expected to be adequate to fund the expanded management activities described in the 2007 HMP (TRA 2007, p. 45-46). Existing HCP revenue is approximately \$130,000 to \$140,000 annually (TRA 2007, p. 6-7). Approximately \$200,000 is expected to be generated annually by the HCP endowment, and approximately \$75,000 per year by HCP assessments on new homes constructed on the Northeast Ridge (TRA 2007, p. 6-7). The projected annual funding for habitat management under the proposed Amendment is approximately \$405,000 to \$415,000 (in 2007 dollars) (TRA 2006)

Estimates for the cost of an expanded management program vary widely, depending on the financial assumptions and level of management included. For example, the 2006 TRA Special Report on management costs modeled expenditures using the most aggressive potential management scenario and arrived at an estimate of \$425,000 (\$415,000 for management plus \$10,000 annually for a contingency fund). This model, however, reflects only the uppermost limit of a range of hypothetical scenarios for expanded management. The full menu of financial scenarios for expanded management ranges from approximately \$140,000 per year (for the existing “core program” aimed at controlling exotic species, plus controlled burning and grazing) to approximately \$383,000 per year (for comprehensive management of all Priority One areas) to a

maximum of approximately \$415,000 per year (for comprehensive management of all Priority One areas plus extensive monitoring every year). Thomas Reid Associates, Administrative Draft San Bruno Mountain HCP 5 Year Plan (July 2004).

It should be noted that the precise level of management performed in any given year, and the amount of funds expended, will depend on such factors as the management needs and priorities identified for that year and the mid- to long-term budget for HCP expenditures. Over the course of the HCP's history, annual spending has varied quite widely from year to year, with expenditures as low as \$60,000 in some years and over \$200,000 in other years (TRA 2006, p. 3). Thus, the estimates provided in the Draft 5 Year Plan and the TRA Special Report should not be viewed as precise funding requirements for any particular year.

As these numbers indicate, the proposed Amendment would support a wide range of feasible scenarios for increased management of the Conserved Habitat, any of which would be an improvement over current management levels and would increase protections for HCP species of concern.

The 2007 HMP, the Biological Study, nor the EA reference annual habitat management costs of \$455,000. The range of financial scenarios for expanded management is described above. The commenter did not provide information to substantiate the claim, that they have heard annual costs “estimates twice as large and 8 time as large, made by people in the field.” Further annual expenditures over the life of the HCP have varied from approximately \$60,000 to \$200,000.

Regarding HOA fees, the commenter implies that the annual HCP fees collected are an unreliable source of funding. However, the fees are enforceable through covenants

running with the land, incorporated into the deeds of sale for the homes. In addition, the comment suggests that the fees assessed on homeowners by the HOA will become more burdensome in the future than they are today. However, the purpose of tying the fees to the consumer price index is to ensure that the real value of the fees remains constant over time, despite inflation. Thus, whatever the inflation-adjusted fee amount may be in 25 years, it will remain equivalent to \$850 in 2007 dollars, just as it is today.

Regarding income from the endowment, the commenter is incorrect. A non-wasting endowment, by definition, is one in which the inflation-adjusted value of the principal is maintained in perpetuity. Thus, a portion of the HCP endowment income will be retained each year in order to ensure that the real value of the Endowment does not decline. The remaining income will be available for use in the habitat management fund. This assumption is built into the conservative rate of return projected for the HCP Endowment.

A 5 percent annual rate of return from a non-wasting endowment is a conservative estimate based on performance of numerous endowment funds established for species' conservation banks over the last 20 years within the Sacramento Fish and Wildlife Service's jurisdiction. The 5 percent annual return is also within the range used by various conservancy organizations and accepted by other government agencies.

As explained above, overall funding for HCP management is not being addressed by the proposed Amendment. The Amendment addresses additional funding provided by Brookfield as mitigation for impacts to callippe silverspot butterflies resulting from the proposed Amendment. The commenter's opinions regarding management of the HCP area to date are noted.

Comment 89: One commenter made the following comments: (1) “I vigorously oppose the proposed addition of callippe silverspot” butterflies to the ITP; (2) viola habitat can not be replaced and any loss of habitat is permanent; (3) if an amendment is necessary to conduct habitat enhancement for callippe silverspot, the Service should consider an amendment that would only allow take for that purpose; (4) there is no shortage of unaffordable housing in the Bay Area, but there is a shortage of callippe silverspot butterflies; (5) it is “astonishing and unacceptable that the Service now suggests” the butterfly can withstand further loss of habitat; (6) data collected by TRA for most of the 20 years of monitoring has been “useless except to confirm the monitored species’ mere existence;” (7) there is no substantive assurance that management practices will improve; (8) the proposed development will proceed in “a vital migration corridor” and callippe silverspot butterflies are not “roadworthy;” (9) the Service should not prolong or expand the “poor management practices of San Mateo County and its contractor, Thomas Reid and Associates;” and (10) there is no “solid evidence” the endowment fund will contribute to any positive difference for the Mountain and the proposal should not be approved.

Response 89-1: The commenter’s opinion is noted.

Response 89-2: Regarding replacement of viola habitat, please see our response to comments 71-15, 82-2, and 88-7 above.

Response 89-3: Regarding an alternative that only amends the ITP for the HMP, please see our response to comment 9 and 88-2 above.

Response 89-4 to 89-5: Regarding the shortage of callippe silverspot butterflies and loss of additional habitat, as the Biological Study, the net effect of the proposed Amendment on callippe silverspot habitat will be beneficial. Although development under the 2007 VTM will result in loss of some habitat, the impacts to habitat will be reduced compared to the existing HCP, the increased funding provided by the HCP endowment, which will allow for better management and preservation of existing callippe silverspot habitat (including more effective measures to combat loss of grassland habitat to coastal scrub succession and invasive species), and preservation of high quality hill topping habitat. In addition, the Biological Study concluded, based on the best information currently available, that the proposed Amendment will not appreciably reduce the likelihood of the survival and recovery of the species in the wild (TRA 2007, p. 46). Finally as noted previously, pursuant to section 7(a)(2), in order to issue an incidental take permit, the Intra-Service biological opinion must come to the conclusion that the proposed Amendment is not likely to jeopardize the continued existence of any endangered or threatened species or adversely modify its critical habitat.

Response 89-6: Regarding the validity of data collected by the Habitat Manager, we share the commenter's wish for more complete and extensive data. The Service acknowledges that some data collected early during implementation may not have the same robust statistical value as data collected more recently. However, federal agencies are required to rely on the best scientific and commercial data available in determining whether their actions are likely to jeopardize the continued existence of listed species (59 FR 34271).

The comment incorrectly implies that habitat is being traded for the HCP

endowment provided by Brookfield. In fact, the site of the Northeast Ridge development is already designated as a developable area under the existing HCP; no change is proposed except for the minor boundary adjustments and equivalent exchange amendment described in the EA.

Response 89-7: Regarding assurances of management, additional funding provided by the Amendment will allow a greatly enhanced vegetation management and monitoring program to improve habitat conditions on the Mountain for all Covered Species.

Response 89-8: Regarding Guadalupe Canyon Parkway as a corridor for callippe silverspot butterflies, please see our response to comments 73-6, 87-17, and 88-10 above.

Response 89-9: The comment regarding the County and Habitat Manager is noted.

The benefits of the HCP Endowment are explained in the EA on page 2-9 (Service 2007) and in our response to comments 11, 68, 73, 74, and 77 above.

Response 89-10: The commenter's opinion regarding the approval of the proposed Amendment is noted.

Comment 90: One commenter made the following comments: (1) the Service should not have started the EA with a "strong promotion of the developers position" but instead should have made a "scientific or unbiased statement about the details of the amendment;" (2) only a few acres of butterfly habitat have been restored to date, "let alone the 84 acres graded and restored;" (3) the current approach in the HCP has failed and the EA provides no evidence of what can be accomplished with the proposed

endowment; (4) the extirpation of both the Bay checkerspot butterfly and San Francisco garter snake are clear evidence of the failure of the HCP; (5) by allowing development within the Northeast Ridge, the Service likely eliminates the use of prescribed burns in this area to restore habitat; (6) “non-mitigation funding” should have been explored as an alternative solution to the encroachment of weeds and native plant succession; (7) an EIS should be prepared, because there is no clear evidence that the Amendment will be successful and the EA does not justify the proposed level of funding; (8) the callippe silverspot can not “survive further loss of habitat;” and (9) the proposed mitigation is does not adequately mitigate for the take of callippe silverspot butterflies.

Response 90-1: The commenter’s statement regarding the introduction section of the EA is noted.

Response 90-2: The commenter states that 84 acres of butterfly habitat has not been restored; however, EA does not state 84 acres of butterfly habitat has been restored, it simply states that a total of 84 acres that have been graded have been restored (Service 2007, p. 1-2); this includes habitat for species other than butterflies. The commenter does not provide any information to support their claim that 84 acres of graded habitat has not been restored.

Response 90-3: The commenter’s statement about the failure of the HCP to date is noted. However, the Service does not agree with this conclusion. The Service agrees that funding restrictions have resulted in a reduced vegetation management program; however, in those areas where vegetation management has been focused they have been successful and to date 2,828 acres have been dedicated as Conserved Habitat (Service

2007, p. 1-2) and approximately 1,200 acres of grassland habitat (San Mateo County Parks 2007, p. 8).

Response 90-4: Regarding the extirpation of the Bay checkerspot butterfly and San Francisco garter snake, the HCP is not responsible for the extirpation of either species from the Mountain. As noted in the EA, the San Francisco garter snake had not been observed on San Bruno Mountain since the 1970s, prior to the establishment of the HCP (Service 2007, p. 3-11). Historically, Bay checkerspot butterflies were known only from the top of the Southeast Ridge, within the area of the County Park. The Bay checkerspot butterfly was last observed on the Mountain in the mid 1980s (Service 2007, p. 3-13). According to the listing rule for the Bay checkerspot butterfly, the species had been declining in recent years on the Mountain and only 50 Bay checkerspot butterflies were observed in 1984 (Service 1987, p. 35373). In 1986, a wildfire sweep through portions of the Mountain, including the Southeast Ridge, and Bay checkerspot butterflies have not been observed on the Mountain since that time (Service 1987, p. 35373; Service 1998, p. II-201; Service 2001, p. 21455; Service 2007, p. 48184). At the time the Bay checkerspot was listed, it was known from two core areas, one in Santa Clara County and at Edgewood Park in San Mateo County. However, as noted in the EA, the Bay checkerspot butterfly is in long term decline throughout its range and the species was last observed in San Mateo County in 1997 (at Edgewood Park). The species is currently restricted to a large contiguous ridge line in Santa Clara County, commonly referred to as Coyote Ridge. There is no evidence that extirpation of the Bay checkerspot butterfly on San Bruno Mountain is related to implementation of the HCP; its subsequent extirpation from San Mateo County is evidence its decline was not restricted to the Mountain and

was likely tied to invasion of non-native vegetation and extreme weather (i.e., prolonged draught).

Response 90-5: Regarding prescribed fire, residential areas are already located on the Northeast Ridge. From a public safety perspective, the proposed Amendment will not make the use of fire as a management tool any more or less feasible. However, there are many hundreds of acres of Conserved Habitat on the Mountain that are not located adjacent to the Northeast Ridge. The proposed Amendment will make the use of fire more feasible in these areas because it will authorize incidental take that might occur as a result of prescribed burns.

Response 90-6: Regarding “non-mitigation” funding, no alternative source of funding has been proposed to the Service or the HCP Operator. In addition, please see our response to comment 9 above.

Response 90-7 to 90-9: Regarding preparation of an EIS, please see our response to comment 8 above. The 2007 HMP is the “plan of action” the commenter notes is missing in the EA. Regarding the funding for habitat management, additional habitat loss, and adequate mitigation for the callippe silverspot butterfly, please see our response to comment 88 above.

Comment 91: One commenter made the following comments: (1) an EIS should be prepared for the proposed Amendment; (2) the EA is inadequate, misleading, and does not take into consideration cumulative impacts; (3) the proposed development will bisect the callippe silverspot butterfly’s remaining habitat into two fragments; (4) the callippe silverspot butterfly “is an indicator of other adverse impacts affecting all of the native

habitat on San Bruno Mountain;” (5) the Amendment does not adequately mitigate for the proposed take; (6) viola have not been successfully propagated; and (7) because the HCP is underfunded, taking the money offered by Brookfield is “tempting,” but once habitat for the callippe silverspot is lost it can not be restored.

Response 91-1: Regarding preparation of an EIS, please see our response to comment 8 above.

Response 91-2: The commenter’s statement that the adequacy of the EA as “inadequate [and] misleading” is not specific enough for the Service to provide an individual response; however, specific comments about the adequacy of the information contained in the EA are addressed in detail above in our response to comments 9, 10, 15, 28, 42, 45, 60, 62, 63, 66, 82, 86, and 88.

Regarding cumulative impacts, please see our response to comments 5, 32, 34, and 64 above.

Response 91-3: Regarding fragmentation, please see our response to comments 1, 52, 73, 74, and 88 above.

Response 91-4: Regarding callippe silverspot butterflies being indicator species, the comment is noted and the Service agrees with the statement.

Response 91-5: Regarding adequate mitigation, please see our response to comment 88 above.

Response 91-6: Regarding propagation of viola, as previously noted, the neither the EA nor the Biological Study rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss.

Response 91-7: Regarding accepting additional money in exchange for endangered species habitat, please see our response to comment 88 above.

Comment 92: One commenter made the following comments: (1) they disagreed with the certification of the EIS and EIR; (2) the Brisbane City Council “made and error in certifying the additional E.I.S;” (3) more study is necessary to make an informed decision on the EIS; (4) the money offered by Brookfield is “inadequate to ensure the survival of the” callippe silverspot butterfly; (5) the City Council allowed expansion of a home into the butterfly corridor; (6) the SBMW has a history of compromise; and (7) they stated that their position on the Amendment is supported by the fact they have “not lost a lawsuit to date.”

Response 92-1 to 92-2: The commenter appears to have combined elements of CEQA with NEPA. Neither an EIR nor an EIS has been prepared for the proposed Amendment. Neither an EIS nor an EA requires “certification.” It appears the comments regarding the City Council are directed toward the City's compliance with the CEQA review process. The EA at issue here was prepared pursuant to NEPA, not CEQA. To the extent that the issues presented are relevant to the NEPA process, they are addressed in the responses to the comments received on the EA's compliance with NEPA above.

Response 92-3: Regarding the proposal to delay action until more information is available; the ESA requires federal agencies to rely on the best scientific and commercial data available in determining whether their actions are likely to jeopardize the survival of a listed species. It does not require that new scientific research be performed to refute the

claims of project opponents or that decision making be postponed until the survival of endangered species can be guaranteed.

Response 92-4: Regarding the funding, please see our response to comment 88 above.

Response 92-5: Regarding the expansion of the home at 10 Huckleberry Court, please see our response to comment 88 above.

Response 92-6 to 92-7: The comments regarding SBMW are noted.

Comment 93: One commenter made the following comments: (1) they have observed the San Bruno elfin, mission blue butterfly, and callippe silverspot butterflies on the Mountain; (2) they opposed the proposed Amendment to the ITP; (3) the claim that habitat islands or created habitat can be replaced is false; (4) fragmentation and destroying habitat has lead to the callippe silverspot butterfly being nearly extinct; (5) viola has never been successfully propagated; (6) the claim that callippe silverspot butterflies will use Guadalupe Canyon Parkway as a corridor is false and casts serious doubt on the validity of the EA; and (7) the callippe silverspot butterfly is the endangered entity needing protection, not development companies.

Response 93-1 to 93-2: The comments regarding observing the three listed butterflies on the Mountain and their opposition to the proposed Amendment are noted.

Response 93-3: Regarding habitat islands, please see our response to comments 19, 86-3, 86-6, 87-4, 88-6, and 88-7 above.

Response 93-4: Regarding fragmentation, please see our response to comments 1,

52, 73, 74-1, 74-2, 74-3, and 88 above.

Response 93-5: Regarding propagation of viola, please see our response to comments 71-15, 82-2, and 88-7 above.

Response 93-6: Regarding callippe silverspot butterflies using Guadalupe Canyon Parkway as a flight corridor, the EA states that the butterfly currently uses and is expected to continue to use the habitat along either side of the Parkway; please see our response to comments 34, 73-6, 87-17, and 88-10 above for more detailed information.

Response 93-6: The commenter's statement regarding the callippe silverspot butterfly being endangered is noted.

Comment 94: One commenter made the following comments: (1) mission blue butterflies and their host plants would also be taken by the project, several thousand adults of both species would be killed, and the geology and hydrology would be altered; (2) in light of the endangered status of both the callippe silverspot and mission blue butterflies, the "take" of 19.64 acres and 1.07 acres of habitat is significant; (3) "nowhere in this amendment is there the protection and conservation of existing [c]allippe [s]ilverspot or [m]ission [b]lue habitat;" (4) mission blue and callippe silverspot butterflies are listed in part because of their specific ecological needs and neither species had "fully adapted to non-native plants;" (5) the Northeast Ridge is one of the highest quality intact grasslands on the Mountain and the Mountain in general is the callippe silverspot and mission blue butterfly's best remaining habitat; (6) host plants and individual butterflies will be destroyed by the proposed Amendment; (7) grading and construction causes immediate destruction of habitat and changes the contour of the land

and flow of water; (8) engineers can protect homes by construction of retaining walls and water diversions, but they can't keep the mountain slope from sliding; (9) after grading soil becomes compacted and all biodiversity is destroyed; (10) construction results in dust and environmental damage is often larger than initially expected; (11) butterfly habitat around homes and associated infrastructure become a "dead zone," extending for hundreds of yards beyond the development and isolates butterfly populations; (12) residential development brings a host of problems, such as runoff from fertilizers and irrigation systems, domestic animals, and introduction of invasive species from landscaping; (13) the proposed Amendment would isolate the callippe silverspot butterflies on the Northeast Ridge and Guadalupe Canyon Parkway is not a viable flight corridor; (14) "the added barrier of homes and their associated death zones will cause the gradual and consistent decline of the Northeast Ridge butterfly populations over time;" (15) conserving contiguous habitat is important as indicated by historical losses of the callippe silverspot and mission blue butterfly at Twin Peaks and other locations around the San Francisco Bay; (16) to date there has been minimal study of the ecology of the callippe silverspot butterfly on the Mountain; (17) the EA does not discuss research goals or methodologies, makes poor assumptions regarding the future, and the data gathered to date is incomplete; (18) the EA's distribution of viola is unclear and the maps do not explain what the habitat is like, where it is or its abundance/density; (19) Figures 3-4 does not indicate viola density nor does it indicate if callippe silverspot butterflies have been observed in those areas; (20) Figure 3-5 does not indicate viola density or what vegetation type is along the Parkway; (21) the Amendment would destroy 12.5% of viola habitat directly and cause a decline of the remaining viola habitat over time; (22) the

commenter's research on the Northeast Ridge in 2007, indicated viola densities ranged from "90-120 plants per acre (369 plants over approximately 3-4 acres);" (23) violas occur in small clumps and are patchily distributed not evenly as summarized in the EA; (24) habitat can not be created from "scratch" and "no mitigation offered" can replace callippe silverspot butterfly habitat; (25) restoration sites often result in human constructed sites or continuously managed sites, which are "akin to a garden of natives rather than a wild place;" and "by definition a wild place more or less takes care of itself, and needs little human attention;" (26) planting of host plants from nursery grown stock does not create new habitat, but merely supplements existing populations and nursery stock can not replicate genetic diversity; (27) nurseries "have been unable to grow the violas, much less plant them out into the wild;" violas in the wild are irreplaceable and to conserve callippe silverspot populations on the Mountain all remaining habitat must be conserved; (28) grassland communities on the Mountain do "not automatically go to scrub" as indicated by the EA; (29) "wildland sites" have qualities that allow them to resist invasion and "heal themselves from damage" and what they need most "are lack of fragmentation, distance from dead zones and time to adjust to new and novel organisms;" (30) there has been little habitat restoration to benefit endangered butterflies on the Northeast Ridge over the past 11 years; (31) the Amendment will actually result in habitat destruction rather than conservation or enhancement; (32) the Amendment should focus on conservation and recovery of listed species; (33) development on the Northeast Ridge should not be approved; (34) money should not continue to "flow into the pockets" of developers and local governments and funding "must be solicited from other sources to protect and guard the mountain;" (35) "money will follow" if the will and vision to

conserve biodiversity is present and existing land owners should be compensated for their inability to build any further on the Mountain; and (36) the Service should consider the full protection of the Northeast with no additional development as an alternative.

Response 94-1: The impacts to butterfly habitat and host plants are recognized and discussed in detail in the EA and 2007 Biological Study. Take of mission blue butterflies was addressed in previous environmental documents including the Service's past biological opinions. In addition, incidental take of all listed species associated with the project will be address in the Service's Intra-Service Biological Opinion for the proposed Amendment, which will be completed once the Service has reviewed all public comments.

Regarding the commenter's opinion that "several thousand" adult butterflies will be taken, the comment is noted. The EA assesses the impact to callippe silverspot butterflies, in part, based on the number of larval host plants that are expected to be lost. Presence and number of larval host plants is the primary limiting factor for determining occupancy and abundance of callippe silverspot butterflies. Calculating the exact number of individual butterflies that will be taken is difficult due to the biology of the butterfly. Therefore the Service assumed a loss of all individuals within the area to be impacted and still determined that with mitigation the loss was not significant. As the EA notes, measures have been incorporated in order to reduce the impact of the proposed Amendment to individual butterflies, such as dust control measures (Service 2007, p. 4-41), erosion control measures, and phased grading (Service 2007, Table 4-1). In addition, the proposed Amendment is a minimization of the original impacts to individual callippe

silverspot butterflies from the 1989 VTM.

The Service agrees that the proposed Amendment may impact geology and hydrology; these impacts are addressed in the EA on pages 4-10 to 4-21 (Service 2007).

Response 94-2: Regarding loss of 19.64 and 1.07 acres of habitat, while the Unit II Neighborhood II development at the Northeast Ridge will permanently and temporarily disturb a total of 19.64 acres, much of this area is located within the eucalyptus grove, or within previously disturbed areas, neither of which provides habitat for listed butterflies (Service 2007, p. 2-3 – 2-6). The development will disturb approximately 12 acres of grasslands and is expected to disturb 3.1 acres of viola habitat, including impacts to 1.07 acres from the 2007 Infrastructure Grading which has already occurred (Service 2007, p. 4-26, 4-31)

The habitat to be impacted under the 2007 VTM is not considered “prime endangered species habitat” as noted by the commenter. Under the proposed Amendment, high-value ridgeline/hilltop habitat (i.e., “prime”) located on the Northeast Ridge will be avoided and impacts will be confined to lower-value habitat areas (Service 2007, p. 4-31, 4-35; TRA 2007, p. 20). The commenter's opinion regarding the significance of the effects of the proposed Amendment is noted, but the commenter did not provide information to support the position that any impact to habitat of a listed species is by default significant. In this case, the EA explains why the habitat loss and its resultant take that would result from the proposed Amendment is not significant: it is small in size; preserves existing movement and does not isolate existing populations; preserves and manages high-value hilltop habitat; and it provides substantial funding for management of Conserved Habitat throughout the Mountain.

Response 94-3: The commenter's assertion that the proposed Amendment does not protect or conserve existing mission blue or callippe silverspot butterfly habitat, is incorrect. As stated on page 2-6 of the EA, the proposed Amendment would result in a net increase of 8.93 acres of Conserved Habitat.

Response 94-4: The Service agrees with the comment that both mission blue and callippe silverspot butterflies are listed in part due to their ecology, which is why the HCP is designed to address the specific ecological needs of both the callippe silverspot and mission blue butterflies, as well as the other listed species, by preserving, protecting, and enhancing the habitat they depend on. The Service also agrees that neither species has "adopted to non-native plants" which is why the proposed Amendment includes increased funding for vegetation management that, as noted throughout the EA, is critical for long term protection of the grassland habitats on the Mountain that both callippe silverspot and mission blue butterflies rely on, as well as other listed species.

Response 94-5: The Service and Applicants recognize the importance of the Northeast Ridge, which is why the proposed Amendment would revise the operating program and development plan for the Northeast Ridge in order to reduce impacts to listed species and permanently preserve high-quality hilltop and intact grasslands on the Northeast Ridge.

Response 94-6: The Service recognizes that butterfly host plants located within the disturbed areas will be destroyed by development, and this is discussed in the EA (Service 2007, p. 4-30 – 4-42). In addition, the Service also recognizes that individual butterflies will be taken as a result of the proposed Amendment resulting from development on the Northeast Ridge and vegetation management, which is why the

proposed Amendment includes adding the callippe silverspot butterfly and Bay checkerspot butterfly to the ITP.

Response 94-7: The Service recognizes the impacts likely to be caused grading. The EA assumes that the area proposed for development will no longer provide habitat for the callippe silverspot or mission blue butterflies.

Response 94-8: The comment regarding engineers not being able to prevent mountain slopes from sliding is noted.

Response 94-9: The commenter's claim that after grading "all biodiversity is destroyed" is not supported by any scientific literature of which the Service is aware. While grading does result in localized compaction of soil, "all biodiversity" within the area of disturbance is not lost. Seeds from numerous plants remain in the soil as part of the seed bank and generally germinate during the following growing season. This is particularly true for disturbance adapted species. Additionally, soil compaction does not destroy all microbial species nor does it result in the death of all insects or fungi. While areas that are graded for individual homes will result in the permanent loss of habitat for callippe silverspot butterflies, as noted in the EA (Service 2007, p. p. 4-30 – 4-42), relatively common subterranean organisms such as ants and beetles would be expected to recolonize these areas.

Response 94-10: Regarding dust, the EA addresses potential impacts from dust on pages 4-8 and 4-41. As the EA describes, implementation of dust control measures are expected to minimize impacts to the butterflies.

Regarding habitat fragmentation and isolation, the EA discusses these impacts on pages 4-38 to 4-40 (Service 2007). These impacts are also discussed in the Biological

Study (TRA 2007, p. 21 - 22, 28).

Response 94-11: Regarding the habitat around development being “best described as a dead zone” that “extends hundreds of yards beyond the marked boundaries of houses” the commenter provided no information to support this claim nor is the Service aware of any scientific information to support the claim. The Service agrees that areas adjacent to development often experience increased pressure from non-native species, which is the reason that natural areas in close proximity to developed areas often require management actions to combat this threat. The proposed Amendment provides an endowment precisely for this reason. However, areas adjacent to human development can hardly be described as “dead zones.” Tidal marshes around the San Francisco Bay area are prime examples where native ecosystems are able to co-exist with human development and many are within 200 yards of residential areas. While the Service agrees that these areas experience increased threats due to their close proximity to development, they are not dead zones. Existing populations of callippe silverspot and mission blue butterflies on the Northeast Ridge are another example of native ecosystems co-existing adjacent to residential areas. The majority of callippe silverspot and mission blue butterflies on the Northeast Ridge are well within the “dead zone” distance the commenter claims exists around dwellings.

Response 94-12: Regarding increased threats from pesticide runoff, invasive species, etc., as noted above the Service acknowledges these additional threats and they are addressed in the EA. For example, impacts resulting from the spread of non-native species, including domestic animals are discussed on pages 4-27 to 4-28 (Service 2007). In addition, the Service’s Biological Opinion for the proposed Amendment will also

address these impacts.

Response 94-13: The EA addresses callippe silverspot butterfly habitat fragmentation and population isolation on pages 4-38 to 4-40 (Service 2007). In addition, please see our response above to comments 73, 87, and 88 regarding travel corridors.

Response 94-14: The EA recognizes that homes on the Northeast Ridge can be a partial barrier to butterfly movement. However, these impacts are mitigated by the preservation of movement corridors along both sides of Guadalupe Canyon Parkway, the preservation of high-value hilltop habitat at Callippe Hill, and funding for increased vegetation management (Service 2007, p. 4-36 to 4-37).

Response 94-15: Regarding conservation of contiguous habitat, the Service and Brookfield recognize this importance, which is why the proposed Amendment would revise the operating program and development plan for the Northeast Ridge in order to avoid additional, fragmentation of butterfly habitat on the Northeast Ridge and would result in the dedication of an additional 8.93 acres of Conserved Habitat. In addition, increased funding provided by the HCP endowment will allow increased management of Conserved Habitat throughout the HCP area and is expected to reduce the amount of fragmentation that has resulted from conversion of grassland habitat to coastal scrub and invasion of non-native vegetation.

Response 94-16: Regarding the ecology of the callippe silverspot, the Service agrees that much of the available information on the species' life history was collected prior to it becoming listed. The Service is also aware that there has been limited research regarding some aspects of its life history (such as density of host plant require to

stimulate oviposition); however, there is considerable information regarding distribution of the butterfly and its host plant on the Mountain, length of the adult flight season, adult sex ratios, “hilltopping” behavior, mating flight behavior, and development times.

Detailed information regarding the species biology and life history will be presented in the Service’s Biological Opinion for the proposed Amendment. This information has been presented previously in other biological opinions that included the callippe silverspot butterfly, including past biological opinions for previous amendments to the San Bruno Mountain HCP.

Response 94-17: Regarding future research goals, as noted in our response to comment 27 above, the EA is intended to be a concise document that summarizes available information and facilitates decision making. An EA is not required to contain lengthy compilations of technical data or descriptions of methodologies used in past research, nor who conducted the research. Future research into a species’ ecology is not a requirement under section 10 of the ESA. Please see our response to comment 3 above for additional information.

Response 94-18: Regarding viola distribution, the EA provides a summary of the distribution of viola on San Bruno Mt. in 2004 (Service 2007, Fig. 3-3) and 2005 (Service 2007, Fig. 3-4), the specific distribution of the larval host plant within the Northeast Ridge (Service 2007, Fig. 3-5), as well as a summary of the callippe silverspot butterfly’s current distribution on San Bruno Mt (Service 2007, p. 3-12). A map of callippe silverspot distribution is provided in the 2007 HMP (San Mateo County Parks 2007, Figure 6) and the Biological Study (TRA 2007, p. 65).

Because the callippe silverspot's host plant, viola, is essential to its life cycle, the

location of viola habitat is used as a proxy for the distribution of callippe silverspots (Service 2007, p. 4-30). The commenter is correct that the reference in the text of the EA to Figure 3-3 being the “distribution of callippe silverspot on the Mountain” is in error and should have read “distribution of grassland that supports viola.”

Response 94-19: Regarding Figure 3-4, the area indicated by cross-hatching includes grassland habitat supporting viola. Density of viola varies within the habitat areas, and the cross-hatching includes the extent of the Northeast Ridge population. Callippe silverspot butterflies have been consistently observed on monitoring transects that traverse the habitat areas, which are documented in the HCP’s annual reports, which are available as part of the administrative record for the proposed Amendment. The most recent annual report is also available through the County of San Mateo’s website (<http://www.co.sanmateo.ca.us/portal/site/parks/>).

The proposed Amendment affects primarily the Northeast Ridge (with the exception of vegetation management), where data regarding viola density has been collected. A map of callippe silverspot distribution is provided in the 2007 HMP (San Mateo County Parks 2007, Figure 6) and the Biological Study (TRA 2007, p. 65).

Response 94-20: Regarding the type of habitat along Guadalupe Parkway, the “cross hatched yellow and black” area on Figure 3-5 is not a separate habitat type from grassland. The area in question is overlain with the same yellow horizontal lines as the other grassland areas on the figure, which the Figure’s key states is grassland. The “black” color seen under the yellow horizontal lines is the color of the underlying aerial photo and does not indicate a different habitat type than other grasslands in this figure.

The exact density of viola plants on the Northeast Ridge is not provided because

the density fluctuates annually. For this reason, acreage, and not number of plants, has been used to represent viola habitat. Within a population of viola, the density of plants will vary by year depending on a variety of environmental factors. The variation in density within the Northeast Ridge is reflective of the variation in density across the Mountain. The “distribution of plants in space” is shown on Figure 3-5.

The data for viola density, and the total numbers of individual viola plants derived from the density figures, are estimates from surveys of portions of the viola population. Sampling a subset of the population is a commonly employed practice in population biology, when counting every individual is not feasible due to factors such as the biology of the species, funding, time constraints, etc.

Response 94-21: The purpose of the commenter's statement, that 12.5% of the viola located on the Northeast Ridge will be impacted by the proposed Amendment, is unclear since the information is essentially the same as the information presented in Table 4-4 of the EA (12.3%). The commenter's opinion that the proposed Amendment will “cause the decline of the remaining violas over time” is noted but the commenter did not provide evidence to support this assertion. The viola habitat remaining within the Northeast Ridge parcel will be part of the Conserved Habitat and with increased funding provided by the endowment will be managed for the benefit of HCP species of concern, including the callippe silverspot butterfly. The proposed Amendment is expected to improve habitat conditions for species of concern throughout the Mountain, including the callippe silverspot butterfly on the Northeast Ridge.

Response 94-22: The commenter's opinion regarding significance is noted. However, the EA identifies significance criteria on pages 4-24 to 4-25. As the EA

explains, the loss of viola habitat on the Northeast Ridge will be mitigated to not significant by the preservation of high value hilltop habitat on the Northeast Ridge and increased funding for habitat management.

The commenter's personal observations of the density of viola on the Northeast Ridge are noted. However, it should be noted that the commenter states that he observed viola "concentrated in the midst of the proposed Amendment" but that the observed density was 90 to 130 plants per acre, compared to approximately 810 plants per acre discussed in the EA (Service 2007, p. 4-31). The commenter's observations do not support his assertion that the most significant areas of viola habitat are located within the proposed development area. In fact, the commenter's observed density of viola in the development area indicates the loss of this habitat would have less impacts to callippe silverspot butterflies than are discussed in the EA.

Response 94-23: Regarding the patchy distribution of viola, the Service agrees that violas are not distributed evenly over the landscape, which is why the approach taken in the EA likely overestimates the impacts to callippe silverspot butterflies resulting from the development on the Northeast Ridge.

Response 94-24: Regarding replacement of viola habitat as mitigation, as noted in our response to comments 71-15, 82-2, and 88-7, the EA does not rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss.

Response 94-25: The Service disagrees with the commenter's claim that the Northeast Ridge is in a "state of wildness" which "takes care of itself, and needs little human attention." This claim is also contradicted by the commenter's earlier statements regarding areas adjacent to development being "dead zones." The basic tenants of

restoration ecology, wildlife management, and conservation biology is that in the highly altered landscapes of today many ecosystems are under heavy anthropogenic pressures; these pressures have resulted in degradation of habitat from invasion by a number of factors such as non-native species and air pollution to name a few. The Society for Ecological Restoration defines restoration as an “intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its health, integrity, and sustainability.” The invasion of the Mountain by a variety of non-native vegetation resulting in the degradation of approximately 122 acres of grassland habitat between 1982 and 2004 ((Service 2007, p. 2-14; San Mateo County Parks 2007, p. 2, 8, II-2, III-2), demonstrates that without management the Mountain’s grassland ecosystems would continue to decline in habitat quality, which would likely result in the extirpation of the Mountain’s listed butterflies.

Similar to our response to comments 71-15, 82-2, and 88-7, regarding viola, the EA does not rely on restoration, transplantation, or creation of lupines as mitigation of habitat loss. However, if successful, areas outplanted with lupines would add additional habitat value to the Conserved Habitat. The Service and the HCP Operator both believe that management and conservation of existing habitat provide the primary means of ensuring the success of the HCP.

Response 94-26: While some genetic diversity is undoubtedly lost in nursery reintroductions, well developed reintroduction plans for species that are not rare (i.e., those that do not have limited seed sources) are often successful. Reintroduction of host plants for other listed butterflies, such as the Myrtle’s silverspot at the Antioch dunes National Wildlife Refuge, have been quiet successful.

Response 94-27: Regarding the lack of success with growing viola, please see our response to comments 71-15, 82-2, and 88-7 above. Regarding conservation of the callippe silverspots on the Mountain requiring all remaining habitat being preserved, the EA concluded the loss of 2.5 percent of callippe silverspot butterfly habitat on the Mountain that would result under the 2007 VTM would be mitigated to not significant. In addition, the Service must make a determination that the proposed Amendment will not jeopardize the continued existence of any listed species in our biological opinion for the proposed Amendment.

Response 94-28: The commenter's claim that grasslands on the Mountain do "not automatically" convert to scrub habitat is partially correct. The EA did not state that all grasslands on the Mountain are converting to coastal scrub habitat. However, succession is a natural biological process in most ecosystems. Succession is the process by which plant and animal communities progress through a series of changes from initial colonization to a climax community, unless disturbed. A climax community is the final stage where the species community has reached equilibrium with the environment. Prior to European settlement, grassland communities on the Mountain were maintained as open grasslands through natural fire, by grazing animals such as elk, and likely by fires set by Native Americans (San Mateo County Parks 2007, p. III-1). As such grassland communities on the Mountain are gradually shifting from grasslands to other habitat types; this succession will continue until the habitats reach a climax community or unless vegetation management activities are implemented on a wider scope.

Response 94-29: Regarding "wildland sites" being able to resist invasion of non-native species, the commenter is again partially correct, relatively undisturbed

ecosystems can be remarkably resilient. However, as noted previously the habitats on San Bruno Mountain are under heavy anthropogenic pressures and can not be classified as pristine. Evident from the last 25 years of study and subsequent loss of habitat from non-native species, the habitats on the Mountain are not able to “resist invasion” without intervention.

Response 94-30: The commenter’s opinion regarding habitat restoration work on the Northeast ridge over the past 11 years is noted. However, as the EA explained, habitat management throughout the Mountain has been limited due to limited funding. The proposed Amendment and addition of a non-wasting endowment will allow for a substantial increase in the scope of management activities on the Mountain including the Northeast Ridge.

Response 94-31: Regarding the Amendment resulting in habitat loss instead of conservation and that the Amendment should focus on only conservation, the commenter appears to misconstrue the purpose of an HCP. An HCP is developed in order to conserve listed species and their habitats in order to mitigate the effects of an action. The action the HCP was developed for included development on the Northeast Ridge. The proposed Amendment reduces that development, its previously analyzed impacts to listed species, and provides a method to supplement funding to the original HCP in order to expand the scope of management actions.

Response 94-32: The commenter’s opinion that the Amendment should focus on conservation and recovery of listed species is noted. However, it should be noted that the commenter appears to be confusing an HCP with California’s Natural Community Conservation Plan (NCCP). The State of California requires that NCCPs contribute to

the recovery of listed species, while a HCP does not. HCP's may contribute to the recovery of a listed species if they are also an NCCP or if the applicant has proposed to contribute to recovery; however, the Service can not require that a HCP contribute to the recovery of a listed species.

Response 94-33: The commenter's opinion that the Amendment should not be approved is noted. The commenter also appears to be proposing a conservation alternative be developed. Please see our response to comment 9 above.

Response 94-34 to 94-35: The commenter's opinion that funding should be sought from other sources is noted. However, HCPs are required to have "assured funding." The proposal the commenter puts forth of soliciting funding from "pocket change fed into parking meters" can not be assured and the Service has no regulatory authority of parking meters nor a process by which the Service could require these funds to be used for the HCP.

The commenter's opinion that existing land owners on the Northeast Ridge "should be compensated for their inability to build" on the Mountain is noted.

Response 94-36: The commenter's opinion that the Service should fully protect the Northeast Ridge is noted. Please also see our response to comment 9 above.

Comment 95: One commenter made the following comments: (1) the EA did not contain a description of the funding sources that would meet the management requirements of the plan over time in one section, but scattered this information throughout the documents; (2) the estimate that \$400,000 will be required annually to implement the management plan appears to contradict information identified by the Plan

Operator and Permittees 4 years ago, which in 2007 dollars is \$456,000; (3) the 5 percent expected return on the endowment are higher than those rates discussed in emails from the Service in 2004; (4) there is no “cost of living” increase for the endowment as there is for the household assessments; (5) initial funding for the HCP was adequate for several years, but as more ambitious management was undertaken management costs exceeded annual funding and that the same thing will happen again; and (6) the permit should not be issued until a “proper financial analysis” is conducted because the proposed funding is inadequate.

Response 95-1: Regarding the EA not containing a section that described funding sources, the Service agrees this information was not presented in a single table and that the source and amount of funding would have been more clear if we had done so. However, the Service notes that all funding information is presented in the text on pages 2-7 and 2-8. In addition, the commenter identified the location of all funding information in their comment letter as well as providing the page number of where this information was found. Sources of funding for the HCP are: the HCP assessments on existing development within the HCP area (Service 2007, p. 2-7); the HCP assessments that will imposed under the proposed Amendment on new homes constructed on the Northeast Ridge (Service 2007, p. 2-7, 2-8); and the HCP Endowment that will funded by Brookfield under the proposed Amendment (Service 2007, p. 2-8). These funds are not allocated to specific management activities on a fixed budget because the management activities to be performed will vary over time, based on the principles of adaptive management that are outlined in the 2007 HMP. Thus, the allocation of funds and even

the total annual expenditures are expected to vary somewhat from year to year. The 2007 HMP does, however, define generally the goals of the expanded management program that will be implemented under the proposed Amendment, as well as describing the activities that will be employed if the proposed Amendment is approved and the approximate cost of each.

The commenter correctly states that the proposed funding has been determined to be sufficient for expanded habitat management. However, Brookfield is not responsible for ensuring that overall funding for the HCP is adequate, nor is the Service required to revisit that issue in approving the proposed Amendment. For additional information, please see our response to comment 88 above.

Response 95-2: Regarding the estimate that annual funding of \$400,000 contradicts information from 2004 the \$415,000 figure cited by the commenter is not a “requirement” for funding, nor is any other number found in the draft reports and correspondence cited by the commenter. As the commenter stated, \$415,000 represents the estimated cost of the “highest level of stewardship” considered in the Draft 5 Year Plan. The other six scenarios for expanded management that were evaluated in the Draft 5 Year Plan ranged in cost from \$140,800 to \$396,859 annually. Any one of these scenarios would provide increased management of Conserved Habitat. For a more detained explanation of funding, please see our response to comment 88 above.

In addition, for clarification, the Biological Study does not state that the annual funding requirement for habitat management is \$400,000. It states that the proposed annual funding in excess of \$400,000 has been found sufficient for habitat management (TRA 2007, p. A-2).

Response 95-3: Regarding the expected 5 percent return rate on the endowment, please see our response to comment 88-13 above.

Response 95-4: Regarding a “cost of living” adjustment for the endowment, A non-wasting endowment, by definition, is one in which the inflation-adjusted value of the principal is maintained in perpetuity. Thus, a portion of the HCP endowment income will be retained each year in order to ensure that the real value of the Endowment does not decline. This assumption is built into the rate of return projected for the HCP endowment.

Response 95-5: Regarding historical funding of the HCP being adequate for the first 10-11 years of the HCP, the additional funding provided under the proposed Amendment is expected to address this very issue, including adaptive management and changes in future management.

Regarding adequacy of the endowment, please see our response above to comment 88-13.

Comment 96: Three commenters submitted identical letters and one submitted a nearly identical letter making the following comments: (1) they oppose the amendment; (2) the species on the Mountain are rare because of past destruction of their habitat and to allow more losses now is “wrong headed;” (3) the EA is grossly inadequate and contradicts statements made by the Service when listing the callippe silverspot butterfly; (4) the EA states that Guadalupe Canyon Parkway “can serve as the spine of a butterfly corridor” allowing them to reach habitat on the other side of the proposed development and that the existing science does not support this claim; (5) to date the County of San

Mateo and the HCP have “poorly managed” the Mountain; and (6) the commenter objects to “throwing good money after bad, while again replacing rare habitat with housing.”

Response 96-1: The commenter’s statement of opposition to the proposed Amendment is noted.

Response 96-2: The Service partially agrees with the commenter’s statement that rare species on the Mountain are rare due to loss of habitat from development; however, loss of habitat resulting from invasion of non-native species and succession of grassland to coastal scrub is also a cause of the decline of several species of concern on the Mountain including the callippe silverspot butterfly.

Response 96-3: The commenter’s statement regarding the adequacy of the EA is noted; however, the commenter did not make any statements regarding what aspects of the EA were inadequate and the Service can not formulate a specific reply. Please see our responses above to specific questions regarding the adequacy of the EA.

Response 96-4: Regarding Guadalupe Canyon Parkway, please see our response to comment 73-6, 87-7, 88-10 above.

Response 96-5 to 96-6: The commenter’s opinion regarding how San Mateo County and the HCP have been managed to date and “throwing good money after bad” are noted.

Comment 97: One commenter made the following comments: (1) they are opposed to the addition of the callippe silverspot butterfly to the ITP for activities by Brookfield Homes on the Northeast Ridge; (2) the Service ignored the statements made

in the Listing rule for the callippe silverspot butterfly; (3) until three years ago the commenter observed butterflies near the Oyster Point Marina, until new homes and grading for an office tower occurred on the southeast slope, which indicates butterflies will not find and use Guadalupe Canyon Parkway; (4) habitat loss can not be mitigated for by planting viola since it has not been successfully propagated and there is no scientific data to back such a replacement plan; (5) that an ITP is being considered shows the lack of stewardship on the part of the City of Brisbane and San Mateo County, as well as the flaws in the HCP; and (6) recommend the Service not issue an amended ITP.

Response 97-1: The commenter's objection to issuance of an amended ITP is noted.

Response 97-2: Regarding information contained in the callippe silverspot butterfly listing rule, please see our response to comment 88 above.

Response 97-3: Regarding butterflies at Oyster Point Marina, the comment doesn't not state if the butterflies observed were callippe silverspot butterflies or not, nor does the commenter specify where at the Marina they were observed; however, review of aerial photographs from 2005 to 2009 of the area in question indicate the Marina and the Southeast Ridge grading are separated by a minimum of 13 lanes of traffic (Airport Boulevard, Highway 101, and Dubuque Ave), a railroad line, and more than a quarter mile of open water. If the commenter observed callippe silverspot butterflies at the Marina, this indicates that callippe silverspots are able to transverse more than a half mile of not only unsuitable habitat, but hazardous areas such as Highway 101 and supports the Service's conclusion that a single two lane road (Guadalupe Canyon Parkway) and a 0.31

mile (at its widest point) wide residential area will not result in fragmentation of callippe silverspot butterfly habitat.

Response 97-4: Regarding propagation of viola, please see our response to comments 71-15, 82-2, and 88-7 above.

Response 97-5: The commenter's opinions regarding proper stewardship by the City and County as well as flaws in the HCP are noted.

Response 97-6: The commenter's recommendation that the Service not amend the ITP is noted.

Comment 98: One commenter made the following comments: (1) they are opposed to the Amendment and that it is without scientific merit; (2) the EA is based on assumptions that have proved incorrect for the past 20 years; (3) a "new EIS should be required;" (4) the proposed Amendment trades money for habitat and assumes money is equally or more valuable than habitat; (5) despite the expenditure of millions of dollars habitat for the butterflies has "decreased dramatically since inception of the HCP;" (6) one event may lead to the extirpation of one or more butterflies from the Mountain similar to the Bay checkerspot butterfly; (7) viola can not be successfully propagated and its habitat is irreplaceable and no amount of money can replace the habitat; (8) the Service and Brookfield Homes has not explored an alternative that excludes any further development in callippe silverspot butterfly habitat; and (9) the commenter provided a summary of information on grassland restoration.

Response 98-1: The commenter's opposition to the issuance of an amended ITP

and statement that the proposal is without scientific merit is noted.

Response 98-2: The commenter's opinion regarding management of the HCP to date is noted. However, there has been no net loss of Conserved Habitat to development under the HCP; however, as noted previously, approximately 122 acres of grassland have converted to coastal scrub over the life of the HCP, which is a result of an inability to conduct a comprehensive vegetation management plan, partially due to funding, but also do to the inability to implement management actions that would result in the incidental take of callippe silverspot butterflies.

Response 98-3: Regarding preparation of an EIS, please see our response to comments 8 and 67 above.

Response 98-4: Regarding “trading money for habitat,” the analysis of the proposed Amendment is not based on the assumption that money is more valuable than the preservation of a species. As the EA explains, the additional funding provided under the proposed Amendment will be used to enhance management of Conserved Habitat for the benefit of species of concern.

Response 98-5: Regarding continued loss of habitat despite implementation of the HCP, there has been no net loss of Conserved Habitat as a result of development under the HCP and the proposed Amendment will increase the amount of Conserved Habitat; however, as noted previously, approximately 122 acres of grassland have converted to coastal scrub over the life of the HCP resulting from lack of sufficient funding to implement the vegetation management plan. While the trend will likely result in a continued decline in grassland habitat without additional management, to date this is not considered a “dramatic” decrease in habitat for endangered species. The proposed

Amendment and endowment will allow for more comprehensive vegetation management to halt and reverse the loss of grassland habitat to coastal scrub succession and non-native species.

Response 98-6: Regarding further loss of habitat from development and its impact on callippe silverspot butterfly populations, please see our response to comment 89 above.

Response 98-7: Regarding replacement of viola habitat please see our response to comments 71, 82, and 89 above.

Response 98-8: Regarding an alternative that excludes development on the Northeast Ridge, please see our response to comment 9 above.

Response 98-9: Regarding the information provided on grassland restoration, the Service is not proposing that restoration and enhancement activities on the Mountain will result in an ecosystem that has been restored to a level that is “self-sustaining.” In fact the opposite is the case. The Service expects vegetation management actions to be required in perpetuity and the increased funding provided by the endowment is expected to provide the funding necessary to carry out that management.

Comment 99: One commenter made the following comments: (1) there are several reasons why the Amendment would benefit the mission blue and callippe silverspot butterflies, including a reduction in the amount of development initially proposed, protection of callippe hill, and the improvements to the management plan made possible from the endowment, which would increase the annual budget for management by 300%; (2) while the HCP has protected 85 to 90 percent of butterfly habitat on the

Mountain existing funding is not sufficient to manage a 2,800 acre park in the manner needed to “address both invasive species and coastal scrub succession;” (3) without additional funds, to address succession of coastal scrub the Mountain will continue to lose grassland habitat; (4) conventional thinking in protecting native ecosystems has often overlooked the process of community succession and that this will have to be accounted for if endangered species on the Mountain are to be protected; (5) most areas on the Mountain where listed butterflies have disappeared is in areas overtaken by coastal scrub and more than 100 acres of butterfly habitat has been lost in this manner; (6) the proposed Amendment would result in the loss of less than 1 percent of grassland habitat on the Mountain (12 acres), which is the amount of grassland lost to coastal scrub expansion every 3 years on the Mountain; (7) focusing only on controlling non-native weeds and not coastal scrub succession will result in continued loss of butterfly habitat; (8) even the most exhaustive invasion weed control program will not be capable of eliminating all weeds on the Mountain and some weeds provide nectar sources for endangered butterflies; (9) coastal scrub on the Mountain should be managed and not eradicated, infusion of additional funding will allow additional management and monitoring on the Mountain; and (10) “if the goal is to sincerely protect endangered species habitat on” the Mountain then the Amendment should be approved.

Response 99-1: The Service agrees with the commenter’s statement regarding reasons the Amendment would benefit listed butterflies.

Response 99-2 to 99-3: The Service agrees that existing funding levels are not sufficient to manage Conserved Habitat in a manner that combats succession by coastal

scrub and non-native species and that continued loss of butterfly habitat is likely without additional funds.

Response 99-4: The comment regarding conventional ecosystem management overlooking natural succession is noted. The Service agrees that often historical ecosystem management programs did not incorporate natural succession. The Service notes that the Forest Service is currently attempting to address the issue of succession in a number of eastern forests. Many eastern oak/hickory forests are converting to beach/maple, which is maybe the result of decade's worth of fire suppression. Succession of sand dune habitat along the coast is another example where continual vegetation management is likely to be required in perpetuity in order to maintain the habitat.

Response 99-5: The Service agrees with the comment regarding loss of butterflies on the Mountain in areas primarily associated with invasion by coastal scrub.

Response 99-6: The Service agrees with the comment that more grassland habitat is lost in three years to coast scrub than would be lost to development on the Northeast Ridge under the proposed Amendment.

Response 99-7: The Service agrees with the comment that vegetation management actions must include coastal scrub management otherwise additional butterfly habitat will be lost.

Response 99-8: The Service agrees with the general comment that most invasive species management plans can not eliminate completely exotic species and that continued management is generally required to maintain habitats that are under heavy disturbance pressures. The Service also agrees that callippe silverspot butterflies are often

opportunistic when seeking out nectar sources and use a variety of plants including non-native species.

Response 99-9: The Service agrees with the comment that coastal scrub habitat on the Mountain should be managed and not eradicated. Coastal scrub is a native habitat type on the Mountain and as such should be maintained. However, in areas where grasslands have succeeded to coastal scrub the Service believes it is appropriate to restore those areas to grasslands that provide habitat for listed butterflies.

Response 99-10: The Service will make a final determination whether to amend the HCP and ITP after its review of all comments, completion of a biological opinion, and Findings documents.

Comment 100: One commenter made the following comments: (1) opposes the proposed Amendment to the ITP; (2) believes it is important to preserve endangered species and abide by the laws protecting them; (3) their understanding is that the Amendment proposes to “relocate or reproduce” the habitat in which the butterflies live and that this likely impossible and the EA should provide examples of where this has been successful; and (4) the Service should deny the proposed Amendment and protect habitat that already supports endangered species.

Response 100-1: The commenter’s opposition to the proposed Amendment is noted.

Response 100-2: The Service agrees with the comment that it is important to protect endangered species. The Service’s mission is “working with others to conserve,

protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.”

Response 100-3: Regarding replacement of viola habitat as mitigation, as noted in our response to comments 71-15, 82-2, and 88-7, the EA does not rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss.

Response 100-4: The commenter’s opinion regarding denial of the proposed Amendment is noted.

Comment 101: Eight commenters submitted identical comment letters and three commenters submitted a nearly identical letter. The 11 commenters made the following comments: (1) an EIS should be required because the Amendment is a major federal action that significantly affects the human and non-human environment; (2) the EA release is grossly inadequate and there is no analysis to the existing environmental setting; (3) in listing the callippe silverspot butterfly as endangered the Service already concluded that urban development was a threat and there is no science that suggests the species can withstand additional loss of habitat; (4) the Amendment does not adequately mitigate the take of callippe silverspot butterflies because viola has never been successfully propagated, thus the endowment offered by Brookfield will not benefit the butterfly; (5) neither San Mateo County nor the HCP Trustees have improved habitat on the Mountain over the past 25 years; and (6) supports an alternative that excludes further development in butterfly habitat.

Response 101-1: Regarding preparation of an EIS, please see our response to

comments 8 and 67 above.

Response 101-2: The commenter's statement that the EA is "inadequate" is not specific enough for the Service to provide a individual; however, specific comments about the adequacy of the information contained in the EA are addressed in detail in our response to comments 9, 10, 15, 28, 42, 45, 60, 62, 63, 66, 82, 86, and 88.

Response 101-3: Regarding information contained in the callippe silverspot butterfly listing rule and threats from urban development, please see our response to comment 88 above.

Response 101-4: Regarding replacement of viola habitat as mitigation, as noted in our response to comments 71-15, 82-2, and 88-7, the EA does not rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss. As noted in our responses to comments 11, 68, 73, 74, and 77 above, establishment of an endowment will provide much needed annual funding to combat the loss of butterfly habitat in Conserved Habitat from succession of coastal scrub and invasion by non-native species.

Response 101-5: The commenter's opinion regarding the success of the HCP is noted. However, as the Service stated when it listed the callippe silverspot as endangered, there is no evidence indicating that the callippe silverspot is declining as a result of the HCP (Service 1997, p. 64306, 64310).

Response 101-6: Regarding an alternative that excludes development on the Northeast Ridge, please see our response to comment 9 above.

Comment 102: One commenter made the following comments: (1) they strongly opposed the Amendment; (2) the Mountain is a California treasure and development has

reduced habitat for listed species to the point that many are threatened with extinction and the callippe silverspot is one that may not survive if the Amendment is approved; (3) the Service should focus on conservation of rare habitats instead of approving this Amendment; and (4) once habitat is destroyed on the Mountain it can not be replaced and the Service should not allow this to happen.

Response 102-1: The commenter's opposition to the proposed Amendment is noted.

Response 102-2: The Service partially agrees with the commenter's statement regarding past reduction of habitat has resulted in the current rarity of some species. However, the Service disagrees with the assertion that with the proposed Amendment the callippe silverspot butterfly may not survive. In fact, quite the contrary. As the EA explains in its review of Alternatives 2 and 3 without the proposed Amendment it is likely that callippe silverspot butterfly populations on the Mountain will decline.

Response 102-3: Regarding the commenter's statement that the Service should focus on conservation of rare habitat, please see our response to comment 88 above.

Response 102-4: Regarding the inability to replace habitat, as noted in our response to comments 71-15, 82-2, and 88-7, the EA does not rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss

Comment 103: One commenter made the following comments: (1) they strongly opposed the Amendment; (2) the EA is inadequate and contradictory to statements made by the Service in the listing rule for the callippe silverspot butterfly; (3) there is no

scientific evidence that viola can be adequately restored once it is removed; (4) the Service should be cautious in trusting Brookfield Homes because of their poor environmental track record to date including “Brookfield’s habitat conservation plan” and lack of restoration of local frog ponds; (5) the Service should oppose the proposed Amendment; (6) a more scientifically “honest and forthright assessment that is transparent to the public must be undertaken;” and (7) enforcement of Brookfield’s prior commitments to the community and environment should be required prior to any additional destruction of habitat.

Response 103-1: The commenter’s opposition to the proposed Amendment is noted.

Response 103-2: The commenter’s statement that the EA is inadequate” is not specific enough for the Service to provide a specific response; however, specific comments about the adequacy of the information contained in the EA are addressed in detail above in our responses to comments 9, 10, 15, 28, 42, 45, 60, 62, 63, 66, 82, 86, and 88.

Response 103-3: Regarding replacement of viola habitat as mitigation, as noted in our response to comments 71-15, 82-2, and 88-7, the EA does not rely on restoration, transplantation, or creation of viola habitat for mitigation of habitat loss.

Response 103-4: Regarding Brookfield’s “poor track record” please see our response to comment 88 above. It should be noted that the existing HCP is not “Brookfield’s habitat conservation plan.” The original HCP was implemented as a binding agreement among the Service, the State of California, the City of Brisbane, the

City of South San Francisco, the County of San Mateo and affected private landowners, which did not include Brookfield at the time.

Response 103-5: The commenter's opinion that the Service should oppose the proposed Amendment is noted.

Response 103-6: Regarding a more "honest and transparent" assessment, the Service believes all relevant information to the proposed Amendment has been provided in the EA, 2007 HMP, 2007 Biological Study, and all other information contained within annual reports and previous environmental documents on file with the Service and available for public review.

Response 103-7: Regarding enforcement of Brookfield's "commitments to the community and the environment," these are already assured. Each of the commitments is incorporated into an enforceable agreement or permit condition, such as the City Conditions of Approval or the Terms and Conditions of the ITP.

Comment 104: One commenter made the following comments: (1) the 1982 HCP has failed to protect listed species and species of concern under the ESA, and has resulted in the continued decline of these species, which was not addressed in the HCP; (2) NEPA requires "the applicants or permittees" to prepare a EIS to major federal actions such as the proposed Amendment; (3) the commenter cited the definition of significance under NEPA and that the proposed Amendment meets this definition; (4) the commenter cited two court cases as examples of what is required pursuant to NEPA; (5) the applicant failed to adequately consider the cumulative impacts of the proposed Amendment; (6) the EA is depends to heavily on outdated and difficult to obtain documents and is confusing

and misleading; (7) “there is no provision in the NEPA Statue or Regulation that allows for tiering and incorporation by reference an EA; (8) the EA does not include a complete description of the impacts, is superficial in its analysis, and makes numerous conclusory statements not supported by data; (9) the EA does not provide adequate documentation of the callippe silverspot butterfly’s continued decline; (10) since viola can not be successfully established through mitigation, “the entire underlying NEPA process is legally inadequate under the ESA;” (11) the HCP has failed to fulfill ESA requirements because mitigation and monitoring completed to date has resulted in less habitat for listed species; (12) the HCP is in violation of the ESA if continued habitat loss is permitted; and (13) the EA is not legally adequate under NEPA as significant impacts are avoidable, mitigation measures are not adequate, and impacts from the last two years were not included in potentially significant impacts, and an EIS must be prepared.

Response 104-1: In listing the callippe silverspot butterfly as endangered, the Service stated that there is no evidence that implementation of the HCP has resulted in a decline of the callippe silverspot butterfly (Service 1997, p. 64306, 64310). The 2006 San Bruno Mt. annual report stated that data collected between 2000 and 2006 indicates that while there is year to year variation in population size, the population size is consistent over time (TRA 2007, p. 9). The most recent surveys, San Bruno Mt. 2008 annual report (TRA 2009, p. 8), which had not been conducted at the time the EA was prepared, draw the same conclusion as the 2006 report with respect to the callippe silverspot butterfly.

Response 104-2: Regarding preparation of an EIS, please see our response to

comment 8 above. Also please note NEPA regulations apply to the lead federal agency, not to the applicant or permittees, unless they are federal agencies.

Response 104-3 to 104-4: The commenter's statements of law are noted.

Response 104-5: The commenter appears to confuse cumulative *actions* with cumulative *impacts*. NEPA requires the analysis of all cumulative or connected *actions* in the same environmental review document, but this applies only to *proposed, federal* actions (40 CFR 1508.23, 1508.25; *Kleppe v. Sierra Club*, 427 U.S. 390, 414 (1976)). The analysis of cumulative *impacts* must include effects of non-federal actions, but the scope of the analysis is not determined by whether the actions are “connected, cumulative [or] similar.”

The commenter did not provide specific comments regarding the EA's discussion of cumulative impacts; therefore the Service can not provide a specific response are not sufficiently specific to allow a detailed response. Cumulative effects are discussed in Chapter 5 of the EA. In addition, please see our responses to comments 5, 32, 34, 64, and 82 above to specific comments.

Response 104-6: The EA relies on information on file at the Service's Sacramento Fish and Wildlife office including the HCP's annual reports up to and including monitoring results from 2006. Information in the administrative record for the proposed Amendment is available upon request.

Response 104-7: The EA refers to previously performed environmental reviews to avoid duplicating the analysis contained in those documents. This practice is not “tiering.” Tiering refers to the incorporation, in a project-specific EIS, of analysis provided in a programmatic or larger scale EIS. The EA does not employ tiering in this

sense.

Response 104-8: As stated in the Federal Register notice for the proposed Amendment, copies of supporting documents (such as annual reports, etc.) are available by contacting Eric Tattersall, Acting Chief of the Service's Conservation Planning and Recovery Division in the Service's Sacramento Office. Documents may also be reviewed in person at the Service's Sacramento Office (73 Fed. Reg. 20324, 20325 (April 15, 2008)). In addition, the list of References provided in the EA on page 7-1 identifies the documents referred to in the EA; many of these are available on the World Wide Web, at the addresses given. Finally, we note that all City approvals for the Northeast Ridge project, including the 2007 VTM, are also available as part of the record for the proposed Amendment.

The commenter's general statements regarding the adequacy of the EA's analysis are noted. Activities conducted under the habitat management are not part of the proposed Amendment. For information regarding pesticides, please see our response to comment 64-5 above.

Grazing and controlled fires may be considered effects of the proposed Amendment to the extent that their use is facilitated by authorization for take incidental to habitat management activities. However, the potential use of grazing and controlled fires is discussed at length in the EA (Service 2007, Chapter 4), the 2007 HMP (San Mateo County Parks 2007, Chapter 5), and the Biological Study (TRA 2007, p. 9-10).

Response 104-9: Regarding documentation of population trends of the callippe silverspot butterfly, as summarized in the EA and Biological Study, extensive research and monitoring have been performed regarding the distribution of callippe silverspot and

its host plant on San Bruno Mountain (TRA 2007, Figure 11).

Response 104-10: Regarding “establishment” of viola and other butterfly host plants as mitigation, please note that conservation and management, not restoration, is the primary means of ensuring the success of the HCP's mission. Please see our response to comments 71-15, 82-2, and 88-7 above for additional information. Regarding jeopardy to the callippe silverspot, please see our response to comments 4, 47, and 86 above.

Response 104-11: Regarding the commenter's allegation that implementation of the HCP has resulted in continued loss of habitat, we note that there has been no net loss of Conserved Habitat to development under the HCP. However, approximately 122 acres of grassland have converted to coastal scrub over the life of the HCP (Service 2007, p. 2-14; TRA 2007, p. 25; San Mateo County Parks 2007, p. 2, 8, II-2, III-2). While this represents a loss of butterfly habitat, it is primarily the result of lack of funding for vegetation management actions. One purpose of the proposed Amendment and the HCP endowment is to allow for a more comprehensive management to halt the loss of grassland habitat. Regarding habitat restoration, please see our responses to comments 71, 82, and 89 above.

Response 104-12: The commenter's statements on compliance with the ESA are noted.

Response 104-13: The commenter's statement that “significant impacts are avoidable” is not relevant to the preparation of an EA. The EA concludes the proposed Amendment will not result in significant effects on the environment after mitigation is taken into account. The general allegation that “mitigation measures are not adequate” is noted.

The comment does not identify the “past impacts of the past two years of various construction [sic]” that allegedly “have not been included as part of potentially significant impacts.” However, the Service assumes the commenter is referring to construction of the homes at Golden Aster Court and Court B, and the 2007 Infrastructure Grading, please see our response to comments 28, 34, and 39 above.

Comment 105: One commenter made the following comments: (1) the commenter cited case law pursuant to CEQA and the State of California and stated the Service is out of compliance with CEQA; (2) the EA does not provide justifications for its claims of mitigation of herbicides, including limiting application to periods when wind speeds are less than 10 miles per hour (mph); (3) there is no analysis to support the conclusion that a 0.25 mile buffer around pesticides will protect human sensitive receptors; (4) there is no analysis of the impact of potential pesticide releases into water courses on the Mountain; (5) there is no supporting analysis of the threat of pesticides to listed butterflies; (6) what is the potential effect of imazapyr on host plants and habitat for listed butterflies; (7) an EIS should be prepared with a full risk assessment of the herbicides proposed for use; (8) the Service does not discuss which plant species will be the target of vegetation control or eradication; (9) the commenter made several statements regarding minimization of pesticide drift; (10) there is no spill contingency plan under the HCP; (11) there is no information that supports the claim that thatch and biomass favor colonization by non-native plants and that evidence exists that supports the conclusion that herbicides promote conditions more hospitable to invasive species; and (12) the EA fails to meet the requirements under NEPA and the ESA because it does not provide

mitigations for impacts resulting from pesticide use.

Response 105-1: The commenter's citation of California case law discussing analysis of herbicide use under CEQA is noted. The EA has been prepared pursuant to NEPA, and not CEQA. An environmental analysis under NEPA is subject to different requirements than an analysis under CEQA. Nonetheless, comments regarding analysis of herbicide use are noted to the extent that they are relevant. Although herbicide use is one of the vegetation management techniques listed in the 2007 HMP, the vegetation management program is part of the existing HCP and not a component of the proposed Amendment. Habitat management activities were authorized under the original HCP and will continue to occur with or without the proposed Amendment.

Response 105-2: The use of herbicides for vegetation management is not an *effect* of the proposed Amendment. The only management activities that can be considered effects of the proposed Amendment are those for which take authorization will be provided by the HCP and its ITP. As the EA states on page 4-41, the proposed Amendment will *not* authorize incidental take resulting from herbicide application. To do so would be inconsistent with the Service policy.

As noted above, pesticide use within Conserved Habitat is not allowed under the existing HCP. Although the proposed Amendment will provide funding for vegetation management on a more comprehensive scale, this will not necessarily result in an increased use of herbicides, and may lead to a reduction in the overall use of herbicides for vegetation management. As the EA states on page 4-32, herbicide application and hand removal have been the primary vegetation management techniques used on the

Mountain since the establishment of the HCP, primarily because of the low cost of herbicide control and because herbicides can be used to target specific invasive plant species without causing significant effects to butterfly species (Service 2007, p. 2-10). Under the proposed Amendment, incidental take authorization would allow the use of techniques such as grazing and prescribed burning in areas where these actions may result in incidental take of the callippe silverspot butterfly. Use of these techniques could result in a reduced need for herbicide use.

Regarding the 0.25 mile buffer, the comment appears to refer to page 4-23 of the EA, which states that “no spraying or hazardous emissions would occur within 0.25-mile of an existing or proposed school, and [habitat management activities] would therefore not expose human sensitive receptors to hazardous materials.” Human sensitive receptors are areas where humans would congregate or live. The 0.25 mile figure is a reference to a buffer distance that is standard protocol for many types of hazardous substances. In addition, the HCP prohibits use of pesticides within Conserved Habitat.

Even within development areas, no large scale application of pesticides, use of pesticides requiring government permits, or aerial application of pesticides, is allowed without written approval by the Plan Operator (HCP 1982, p. III-34). The Operating Program for the Northeast Ridge parcel requires the landowner to establish covenants and restrictions encumbering the Development Area to enforce these restrictions on pesticide use (HCP 1982, p. VII-59). Some small scale use of pesticides may occur within development areas, such as hand application by home owners. Due to their small scale and method of application (i.e., no aerial spraying, etc.), such uses are not considered to pose a risk of exposure beyond the immediate vicinity of their application.

Response 105-3: Regarding the restriction of pesticides at wind speeds of 10 mph or less, the commenter states “winds can have disastrous [sic] effects” and one study found that “the best strategy to minimize spray drift is to avoid applications when wind conditions are high. [This strategy] is the most effective and consistent drift control practice.” Yet the commenter also claims that limiting use of herbicides to circumstances where winds are less than 10 mph, as the EA provides, is not a valid way to minimize potential effects of herbicide use on butterfly species and/or their habitat. As the commenter's own statements demonstrate, the wind speed limitation is an accepted practice for minimizing potential adverse effects of herbicide application.

Moreover, the 10 mph wind speed limitation is a requirement of the California Department of Agriculture, which licenses individuals who perform large scale application of herbicides. Any person who violates the wind speed limitation is subject to fine and forfeiture of their license.

The commenter's statements regarding herbicide application using fixed-wing aircraft, boom-nozzle ground sprayers, etc., are noted, but they are not applicable to the the proposed Amendment or the HCP in general. No broadcast application of herbicides is performed as part of vegetation management activities nor is any proposed; only spot treatment application is used (San Mateo County Parks 2007, p. V-6). The EA also specifies that application of herbicides in areas with sensitive plant species nearby, such as viola, is performed with a backpack sprayer and hand-held applicator to minimize drift and to target invasive species (Service 2007, p. 4-32).

Response 105-4: Regarding pesticide release into water courses on the Mountain, again we note that pesticide use is not allowed within Conserved Habitat, nor is it part of

the proposed Amendment, so there is no significant possibility of release of pesticides from habitat management activities, notwithstanding the broad language of the EA. The EA states that ongoing management activities have the *potential* to release herbicides, pesticides, etc., into intermittent stream courses on San Bruno Mountain but that the Plan Operator will take precautions to ensure that such accidental spills or releases do not occur (Service 2007, p. 4-19). Accordingly, there will be no significant impacts.

Response 105-5: Regarding the threat of pesticides to listed butterflies, again, pesticide use is not permitted within Conserved Habitat. To the extent that the comment refers to threats caused by herbicide use, the EA states on pages 4-22 and 4-23 that use of herbicides near occupied habitat could threaten listed butterfly species. In order to avoid such threats, mitigation measures have been imposed to identify butterfly habitat and host plants, minimize herbicide drift, and ensure that herbicides do not contaminate butterfly habitat (Service 2007, p. 4-32 - 4-34).

Response 105-6: Regarding effects of imazapyr on butterfly host plants and habitat, herbicides will not be used in areas that contain viola and particularly not in habitat occupied by listed butterfly species. Moreover, special precautions will be taken when using herbicides near areas that contain butterfly host plants, in order to minimize herbicide drift and avoid exposing butterfly host plants to herbicides (Service 2007, p. 4-32 - 4-34). The information regarding the persistence and mobility of imazapyr that is provided by the commenter is appreciated and will be retained by the Service for future reference.

Response 105-7: Regarding preparation of a “risk assessment”, as a threshold issue, herbicide application is not part of the proposed Amendment and therefore it is not

necessary for the EA to include a “risk assessment” for the herbicides used. In addition, the commenter errs in stating that there is “little information” on the herbicides that will be used. Information on the herbicides that may be used as part of the habitat management program is provided in the 2007 HMP, attached to the EA as Appendix B (San Mateo County Parks 2007, Table 4).

The commenter's conclusions of law regarding the preparation of an EIS are noted; please see our response to comment 8 above.

Response 105-8: Regarding a list of species that will be the target of vegetation management, the Service can not predict what future species may become a concern on the Mountain and therefore can not provide an exhaustive list of all potential species; however, a list of invasive species currently known for which various herbicides may be used are described in Table 4 of the 2007 HMP, which is attached to the EA as Appendix B.

Response 105-9: The information regarding the pesticide drift provided by the commenter is appreciated and will be retained by the Service for future reference.

Response 105-10: Herbicide application is not part of the proposed Amendment.

Response 105-11: Regarding that please see our response to comments 40 and 68 above.

Response 105-12: Regarding the EA’s failure to meet the requirements of NEPA because mitigation is not provided for pesticide use, please note once more that pesticide application is not part of the proposed Amendment, nor is its use in Conserved Habitat authorized.

Comment 106: One commenter submitted the following comments: (1) opposed the Amendment; (2) there is no science in the EA to support the conclusion the callippe silverspot butterfly can survive further loss of habitat; (3) to data the County of San Mateo and the HCP have poorly managed the Mountain; and (4) urged the Service to deny Brookfield's proposed residential development.

Response 106-1: The commenter's opposition to the Amendment is noted.

Response 106-2: Regarding survival of callippe silverspot butterflies and additional habitat loss, please see our response to comment 82 above.

Response 106-3: The commenter's opinion regarding management of the Mountain to date is noted.

Response 106-4: The commenter's recommendation regarding issuance of an Amended ITP is noted.

Comments 107 and 108: One commenter submitted two letters, one in support of the Amendment and then a subsequent letter in opposition to the Amendment. The comment letter in support of the proposed Amendment included the following statements: (1) increased funding for habitat restoration and invasive species remove "of the upmost importance;" and (2) "I would like to see an eventual return to prescribed burning in order to restore the native grasslands...." The second comment letter, in opposition to the Amendment included the following comments: (1) the primary motive for inclusion of callippe silverspot butterfly to the ITP is to grant permission to kill the butterflies, which is "unacceptable, and violates the spirit of the Endangered Species

Act;” (2) the proposed Amendment was written in such a way as to “deliberately mislead the public, and to dupe well-meaning people;” (3) it should be made clearer that the reason for the proposal is to allow developers to obtain ITP; and (4) is opposed to any additional development on the Mountain.

Response 107-1 to 107-2: The Service agrees with the commenter’s first letter stating that increased funding is needed for habitat restoration to combat invasive species as well as further implementation of prescribed burning.

Response 108-1: Regarding the commenter’s second letter and statement that issuance of an ITP “violates the spirit” of the ESA, one of the purposes of section 10 of the ESA is to provide exceptions to the section 9 prohibitions on take. These exceptions include scientific take permits (section 10(a)(1)(a)) and incidental take permits (section 10(a)(1)(b)). These provisions were included by Congress. In addition, section 7 of the ESA also provides a mechanism for issuance of an ITP.

Response 108-2 to 108-3: The Service had no intention of, nor do we believe the EA misleads the public . The purpose of the proposed Amendment is described on page 1-6 of the EA.

Response 108-4: The commenter’s opposition to the proposed Amendment is noted.

Comment 109: One commenter made the following comments: (1) the proposed Amendment will “threaten the existence” of the callippe silverspot butterfly; (2) an EIS should be prepared; (3) the EA is grossly inadequate; (4) the Service already concluded

that the callippe silverspot butterfly can not survive further habitat loss; (5) viola can not be successfully propagated therefore a monetary contribution by Brookfield is not adequate mitigation; (6) the County and HCP trustees have a poor track record to date; and (7) supports an alternative that includes no further development in callippe silverspot habitat.

Response 109-1: Regarding the proposed Amendment affecting the continued existence of the callippe silverspot butterfly, please see our response to comment 82 above.

Response 109-2: Regarding preparation of an EIS, please see our response to comment 8 above.

Response 109-3: Regarding the adequacy of the EA, the commenter's opinion is noted. The impacts of the proposed Amendment are analyzed in Chapters 4 and 5 of the EA.

Response 109-4: Regarding the Service's rule listing the callippe silverspot and habitat loss from development please see our response to comment 82 above.

Response 109-5: Regarding propagation of viola, please see our response to comments 71, 82, and 89 above. The commenter's opinions regarding the adequacy of mitigation and the success of the HCP are noted. The provision of additional funding for habitat management is a measure designed to support the conservation purposes of the HCP.

Response 109-6: The commenter's opinion of the County and Trustees' track record is noted.

Response 109-7: Regarding an alternative that prohibits any further development, please see our response to comment 9 above.

Comment 110: One commenter made the following comments: (1) an EIS should be prepared; (2) the Service already concluded that the callippe silverspot butterfly can not survive further habitat loss; (3) viola can not be successfully propagated therefore a monetary contribution by Brookfield is not adequate mitigation; and (4) supports an alternative that includes no further development in callippe silverspot habitat.

Response 110-1: Regarding preparation of an EIS, please see our response to comment 8 above.

Response 110-2: Regarding the Service's rule listing the callippe silverspot and habitat loss from development please see our response to comment 82 above.

Response 110-3: Regarding propagation of viola, please see our response to comments 71-15, 82-2, and 88-7 above. The commenter's opinions regarding the adequacy of mitigation and the success of the HCP are noted. The provision of additional funding for habitat management is a measure designed to support the conservation purposes of the HCP.

Response 110-4: Regarding an alternative that prohibits any further development, please see our response to comment 9 above.

Comment 111: One commenter made the following comment: (1) killing of the endangered callippe silverspot butterfly is wrong and shortsighted; (2) opposed the

Amendment; and (3) rare habitats are increasingly rare and once they are gone, they are gone forever.

Response 111-1: Regarding the incidental take of the callippe silverspot being shortsighted, please see our response to comment 82 above. The proposed Amendment is expected to benefit the callippe silverspot by protecting existing high value habitat and allowing improved habitat management.

Response 111-2: The commenter's opposition to the Amendment is noted.

Response 111-3: The Service agrees that rare habitats should be protected and once they have been disturbed/lost it is difficult to restore/replace them. The proposed Amendment protects more habitat than the 1989 VTM or a "no development" alternative and would improve vegetation management over much of the HCP area. As the EA explains, without additional funding, the existing grasslands on the Mountain are expected to continue to experience an annual 5 acre decreases as a result of invasion from coastal scrub and other non-native vegetation.

Comment 112: One commenter made several general comments regarding habitat loss. The only specific comments to the proposed Amendment were: (1) replacing rare habitat with houses is a mistake; and (2) the Service, as a steward of the land, should "stay the hands that wish to grab."

Response 112: Please see our response to comments 82-5, 82-12, 82-20, above.

Comment 113: One commenter made the following comments: (1) viola has not been successfully propagated and it is wrong to allow more taking of this habitat; (2) the EA is grossly inadequate and contradicts previous statements by the Service when we listed the callippe silverspot butterfly; (3) a new EIR should be carried out to determine the “best means of mitigation for today’s environment” and this is required by CEQA; (4) there is no evidence to support the claim that butterflies will use Guadalupe Canyon Parkway as a flight corridor; (5) to date, the County and the HCP have poorly managed the Mountain; and (6) the Service should not approve the plan until new scientific data can gathered.

Response 113-1: Regarding propagation of viola please see our response to comments 71-15, 82-2, and 88-7 above.

Response 113-2: Regarding adequacy of the EA, please see our response to comments 1 through 84, and 86 above.

Response 113-3: Regarding compliance with CEQA, the City of Brisbane, not the Service, is responsible for CEQA compliance on the proposed Amendment. The EA was prepared to comply with NEPA, a federal statute. The EA takes into account current ecological conditions and development that has occurred since 1989.

Response 113-4: Regarding Guadalupe Canyon Parkway, please see our response to comments 73-6, 87-17, and 88-10.

Response 113-6: The commenter’s opinion regarding how the HCP has been managed to date is noted.

Response 113-6: Regarding delaying the Service’s decision until more data can

be obtained, the ESA requires Federal agencies to utilize the best scientific and commercial data available in determining whether their actions are likely to jeopardize the survival and recovery of a listed species in the wild. It does not require that new scientific research be performed to refute the claims of project opponents or that decision making be postponed until the survival of endangered species is assured.

Comment 114: One commenter made the following comments: (1) every species alive deserves our protection; (2) an EIS should be prepared and the EA is grossly inadequate and there is no analysis of impacts to the present environment; (3) there is no science to support the claim the butterfly can withstand further loss of habitat; and (4) supported an alternative that excludes further development in callippe silverspot habitat.

Response 114-1: The comment that all extant species deserve protection is noted.

Response 114-2: Regarding preparation of an EIS please see our response to comment 8 above.

Regarding an analysis of the proposed Amendment to “the present environment,” the Service believes the commenter is making a similar comment as that made in comment 11 regarding an environmental baseline. Please see our response to comment 11 above. Also please note if the Service issues an Amended ITP, an environmental baseline for each species would be included in the Service’s biological opinion for the Amendment.

Response 114-3: Regarding the Service’s rule listing the callippe silverspot and habitat loss from development please see our response to comment 82 above.

Response 114-4: Regarding an alternative that prohibits any further development, please see our response to comment 9 above.

Comment 115: The commenter's letter was nearly identical to comment letter 21.

Response 115: Please see our response to comment 101 above.

Comment 116: One commenter made two comments regarding preparation of a new EIR and recommended the Service approve a "new review" prior to issuing an Amended ITP as well as urging the Service not to issue an ITP for the Amendment.

Response 116-1: Regarding preparation of a new EIR and the Service's approval of it, please note that an EIR that complies with CEQA (i.e., completion of an EIR) is the responsibility of the City of Brisbane and not the Service. The City of Brisbane is responsible for CEQA compliance on the proposed Amendment. The Service does not have the regulatory authority to require preparation of a new EIR.

The commenter's opposition to the Amendment is noted.

Comment 117: The commenter's letter was nearly identical to comment letter 21.

Response 117: Please see our response to comment 101 above.

Comment 118: One commenter made the following comments: (1) disagreed with the conclusions of the EA; (2) opposed the Amended ITP; and (3) requested the Service not allow building on endangered butterfly habitat on the Northeast Ridge.

Response 118-1 to 118-3: The commenter did not state which conclusions in the EA they disagreed with therefore the Service can not provide a specific response and the comment is noted. The commenter's opposition to the proposed Amendment and request that the Service deny the Amendment is noted.

Comment 119: One commenter made the following comments: (1) numerous comments regarding childhood memories growing up at the base of the Mountain, quoted a song, made several comments regarding development in general, and whether or not the Service will approve "rafts" in the Bay once the Mountain has been developed. The commenter made the following project specific comments: (2) opposed the Amendment; (3) the Amendment is shortsighted and not based on any scientific evidence; (4) the Service is trading butterflies for houses; and (5) the Service should follow the model of preserving open space similar to that in Marin County.

Response 119-1: The general comments regarding growing up at the base of the Mountain, and development in general are noted. Regarding "rafts" in the Bay, the Service is not a land regulatory agency nor does the Service permit development projects. Pursuant to the ESA, projects that result in "take" of listed species require an ITP from the Service. The ITP authorizes incidental take of the listed species; it does not authorize the action that causes the incidental take.

Response 119-2: The commenter's opposition to the Amendment is noted.

Response 119-3: Regarding "scientific evidence" the commenter did not provide

a specific comment regarding what they believed to be missing from the EA; therefore the Service can not provide a specific response.

Response 119-4: The commenter's opinion regarding trading butterflies for houses is noted.

Response 119-5: Regarding the commenter's recommendation that the Service follow the "model" for preserving open space in Marine County, please note that not all habitats in Marine County has been preserved as open space. In addition, the existing HCP covers 3,537 acres of the Mountain and currently 2,828 acres are part of the Conserved Habitat. This represents protection of 79.95 percent of the Mountain from development.

Comment 120: Once commenter made several general comments regarding loss of native species and their habitats as well as the following specific comments: (1) opposed the Amendment; (2) the Amendment will impact native species, not just the callippe silverspot butterfly and would "decimate" the butterflies; and (3) this issue has not been fully explored or investigated.

Response 120: The commenter's general comments regarding habitat loss of native species is noted.

Response 120-1: The commenter's opposition to the proposed Amendment is noted.

Response 120-2: The commenter's statement that other native species will be impacted is noted. However, please note that the proposed Amendment is expected to

result in a net benefit to all Covered Species and not just the callippe silverspot butterfly.

Response 120-3: Please see our response to comment 5 above regarding whether the proposed Amendment would jeopardize listed species.

The commenter did not make specific comments regarding what aspects of the proposed Amendment have not been “fully explored and investigated” therefore the Service can not provide a specific response.

Comment 121: One commenter made the following comments: (1) opposed the Amendment; (2); any additional take of callippe silverspot habitat is wrong; (3) the EA is inadequate because there is no evidence to support the conclusion that the callippe silverspot can not withstand additional habitat loss; (4) money can not replace habitat; and (5) the Service has allowed too much development on the Mountain.

Response 121-1: The commenter’s opposition to the proposed Amendment is noted.

Response 121-2: The commenter’s opinion regarding further “take” of habitat is noted.

Response 121-3: The commenter’s statement that the EA is “inadequate” is not specific enough for the Service to provide a individual; however, specific comments about the adequacy of the information contained in the EA are addressed in detail above in our response to comments 9, 10, 15, 28, 42, 45, 60, 62, 63, 66, 82, 86, and 88 above.

Regarding additional habitat loss please see our response to comment 88 above.

Response 121-4: Regarding money not being able to replace habitat, the analysis

of the proposed Amendment is not based on the assumption that money is more valuable than the preservation of a species or that money alone will replace habitat. As the EA explains, the additional funding provided under the proposed Amendment will be used to enhance management of Conserved Habitat for the benefit of species of concern. Improved habitat management is expected to help stop and reverse the trend of grassland succession to coastal scrub and combat the threat of invasive and non-native species.

Regarding accepting additional money in exchange for endangered species habitat, please see our response to comment 88 above.

Response 121-5: The comment regarding the Service allowing too much development on the Mountain is noted; however, please note the existing HCP covers 3,537 acres of the Mountain and 2,828 acres are part of the Conserved Habitat. This represents protection of 79.95 percent of the Mountain.

Comment 122: One commenter made the following comments: (1) “recovery of rare butterflies and the habitats on the Mountain has been dismal;” (2) the Service should not accept the “science” provided by Brookfield that there is no significant impact on callippe silverspot butterflies; and (3) “we” can not replicate species habitat we can only preserve it.

Response 122-1: Neither the original HCP or the proposed Amendment were formulated to recover listed butterflies on the Mountain. The HCP was designed to protect listed species by preserving their habitats while allowing some incidental take. The proposed Amendment does not change this basic concept. Nor does the EA rely on

restoration of butterfly habitat as mitigation for impacts of the proposed Amendment. For additional information regarding restoration of viola habitat please see our response to comments 71-15, 82-2, and 88-7 above.

Response 122-2: Regarding information submitted by Brookfield, the EA does not rely solely on information provided by Brookfield to reach its conclusion that the proposed Amendment will not result in significant impacts. The analysis in the EA includes information from past environmental reviews of the HCP, as well as annual reports prepared for the HCP, the 2007 HMP, and 2007 Biological Study. Please see the list of references section in the EA, 2007 HMP, and the 2007 Biological Study for additional information.

Response 122-3: Regarding restoration of viola habitat, please see our response to comments 71-15, 82-2, and 88-7 above.

Comment 123: One commenter made several generalized comments regarding species loss and biodiversity not specific to the proposed Amendment. Specific comments made were: (1) opposed the Amendment; (2) the proposed Amendment contradicts previous statements by the Service when we listed the callippe silverspot butterfly; (3) viola can not be successfully propagated; (4) Guadalupe Canyon Parkway can not be used as a flight corridor; (5) the purpose of an HCP is to save species; and (6) “nothing in the ESA says a check from a developer under a HCP makes it okay for habitat to be destroyed, if as a result, the species itself is destroyed.”

Response 123: The commenter’s general comments regarding species and

biodiversity loss are noted.

Response 123-1: The commenter's opinion regarding the Amendment is noted.

Response 123-2: Regarding information contained in the callippe silverspot butterfly listing rule, please see our response to comment 88 above.

Response 123-3: Regarding propagation of viola, please see our response to comments 71-15, 82-2, and 88-7 above.

Response 123-4: Regarding Guadalupe Canyon Parkway as a flight corridor, please see our response to comment 73-6, 87-17, and 88-10 above.

Response 123-5: Regarding the purpose of an HCP, the Service partially agrees. HCPs are indeed developed to conserve listed species and the habitats they depend on. However, HCPs are not developed unless "take" of listed species is likely to occur as a result of a proposed action. The development of an HCP is essentially the "mitigation" for the action that will result in take. Preparation of an HCP provides a mechanism by which the applicant may receive an ITP. If "take" of a listed species is not likely to occur, an ITP is not required and development of an HCP would not occur. Incidental take can not be authorized if the take would reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild (i.e., jeopardy) (50 CFR 402.02). Please see our response to comments 4, 47, and 86 above regarding jeopardy.

Response 123-6: Regarding taking money from developers, pursuant to section 10 of the ESA, applicants must minimize and mitigate the impacts that result from their incidental take of listed species. Mitigation may take a number of forms including, purchase of land (i.e., money), conservation easements, deed restrictions, establishing or expanding reserves, purchase of credits, revegetation or restoration of habitat, or setting

back succession. The proposed Amendment includes establishment of a non-wasting endowment. The analysis of the proposed Amendment is not based on the assumption that money is more valuable than the preservation of a species or that money alone will replace habitat. As the EA explains, the additional funding provided under the proposed Amendment will be used to enhance management of Conserved Habitat for the benefit of species of concern. Improved habitat management is expected to help stop and reverse the trend of grassland succession to coastal scrub and combat the threat of invasive and non-native species.

Comment 124: One commenter made the following comments: (1) opposed the Amendment; (2) to allow the killing of the butterfly is contradictory to the role of the Service and even more so when it's followed by the "unfeasible expectation that the butterflies would be able to fly around the development;" and (3) the Service ignored the statements made in the Listing rule for the callippe silverspot butterfly;

Response 124-1: The commenter's opposition to the Amendment is noted.

Response 124-2: Regarding "allowing the killing of the endangered" butterfly, Congress amended the ESA in 1982 to authorize the issuance of permits for incidental take of listed species in accordance with an approved Habitat Conservation Plan (HCP). In addition, section 7 of the ESA also provides a mechanism for issuance of an ITP.

Regarding flight corridors, please see our response to comments 73-6, 87-17, and 88-10 above.

Response 124-3: Regarding information contained in the callippe silverspot

butterfly listing rule, please see our response to comment 88 above.

Comment 125: One commenter made the following comments: (1) opposed the Amendment; (2) disagrees with the assertion that the Amendment does not fragment or isolate the Northeast Ridge; (3) the butterflies and their host plants on Callippe Hill are “doomed” to physical and genetic isolation by the Amendment as evidenced by the local extinction of mission blue butterflies from Twin Peaks; (4) recent fire on the Northeast Ridge may already have resulted in loss of populations; (5) it is “overly presumptive” to believe that the Northeast Ridge colony are not as important as those on the Southeast Ridge; (6) the EA does not rely on “the best available science” since it relies on data collected since 1982, which was not scientific; (7) allowing the “butterfly monitoring and habitat conservation/restoration by the same party” is a conflict of interest; (8) the public lost trust in the Service, in part due to the “activities of one or more of the Service’s highest official who unilaterally reversed decisions on endangered species;” (9) the heavy reliance on the endowment for mitigation “is not sufficient given the non-science and minimal restoration that the previous 20+ years of HCP funding as supported;” (10) the Service has the ability to increase the size and extent of the migration corridor, require more outplanting of lupins, and require more external scientific review; and (11) made the following recommendations: (a) HPC must include information about the status of populations and habitats; (b) require scientific standards for HCPs; (c) include a summary of all available data on covered species; (d) form a scientific advisory committee and independent peer review; (e) create a grassland migration corridor through the development; (f) “modify the HCP plan makeup with external scientists;” (g) foster

volunteer programs similar to those in the Golden Gate National Recreation Area; and (h) provide an annual “San Bruno Mountain Day” similar to the Cal IPC meeting.

Response 125-1: The commenter’s opposition to the Amendment is noted.

Response 125-2: The commenter did not state why they disagreed with the conclusion that the Amendment does not result in isolation or fragmentation of the Northeast Ridge; therefore the Service can not provide a specific response. The Service agrees that fragmentation is a concern for a number of species, including the mission blue and callippe silverspot butterflies. The EA discussed the threats associated with habitat fragmentation on pages 4-38 to 4-40 (Service 2007). Threats associated with urban development are addressed throughout the analysis of impacts to callippe silverspot butterflies on pages 4-30 to 4-42. For specific responses to flight corridors please see our responses to comments 73-6, 87-17, and 88-10 above.

Response 125-3: The commenter is incorrect regarding extirpation of mission blue butterflies at Twin Peaks, please see our response to comment 47 above. Regarding genetic isolation, the Service believes the commenter is referring to the ability of callippe silverspot butterflies to use the habitat along Guadalupe Canyon Parkway, please see our response to comment 73-6, 87-17, and 88-10 above.

Response 125-4: The Service agrees with the commenter that local fire events could have resulted in localized extinction events, including fires on the Northeast Ridge in 2007; however, transect data from the 2008 (not available at the time the EA was prepared) observed 124 callippe silverspot butterflies in transect 5, which includes areas within the area burnt in 2007 (TRA 2009, p. 20).

Response 125-5: The commenter's claim that the EA presumes that callippe silverspot butterflies on the Northeast Ridge are not as important on the Southeast Ridge is incorrect. The Service at no point makes this assumption. In fact the Service and Brookfield recognize the importance of the Northeast Ridge, which is why the proposed Amendment would revise the operating program and development plan for the Northeast Ridge in order to reduce impacts to listed species and permanently preserve high-quality hilltop (i.e., Callippe Hill) and intact grasslands on the Northeast Ridge.

Response 125-6: Regarding "best available science," the ESA requires the Service to base its decisions on the best scientific and commercial information *available*. We acknowledge that the historic sampling methodology and data collected by the former Habitat Manager is imperfect, and we share the commenter's desire for improved information regarding callippe silverspot distribution and abundance on the Mountain. Nonetheless, the data collected by TRA, along with the other research cited in the Biological Study, constitutes the best information available at this time. The Service is required to use this information in its analysis of whether the proposed action poses a threat to the survival of the callippe silverspot butterfly (i.e., jeopardy).

Response 125-7: In addition, the commenter errs in concluding that the Habitat Manager has done nothing to develop a "statistically rigorous monitoring scheme" or to conduct "scientific surveys." The commenter cites the criticisms aimed at the monitoring program by Longcore et al in 2001—particularly the use of wandering transects, rather than set transects, to monitor butterfly presence. But, as the 2007 HMP explains, set transects have been used to monitor butterflies on San Bruno Mountain since 1998, because they provide a "more robust data set for estimating relative abundance and

population trends of the endangered butterflies.” (Set points, rather than set transects, are used to monitor the San Bruno elfin) (San Mateo County Parks 2007, p. VIII-1 - VIII-2).

These and other changes to the HCP monitoring methods were made in response to scientific peer review. Indeed, Mr. Longcore prepared a report in 2004 that provided recommendations and guidance for “further development of a new monitoring protocol.” Longcore's recommendations, along with the recommendations provided by Steven Courtney in 2001, were reviewed by the Service. The Service also received peer reviews on Longcore's proposed monitoring system from Dr. Stuart Weiss and Erica Fleishman in January 2005. Based on this information, the Service recommended in 2006 that the current set transect monitoring system be continued, with minor modifications (San Mateo County Parks 2007, p. VIII-3). The current monitoring methods are described in the 2007 HMP on pages VIII-1 to VIII-2. The 2007 HMP also recommends, if additional funding becomes available, a presence/absence monitoring system should be developed to provide data on distribution of endangered butterflies, which would complement the relative abundance data provided by the existing transect monitoring (San Mateo County Parks 2007, p. VIII-4).

The comments regarding a perceived conflict of interest by TRA are noted; however, they are not relevant to a decision regarding the proposed Amendment, which does not include the habitat monitoring program. As the commenter states, TRA will no longer be serving as the Habitat Manager for the HCP. Regarding the monitoring methods formerly employed by TRA, they are not relevant to the ongoing management and monitoring of the HCP area, since they have been replaced with new methods based on a peer reviewed methodology (San Mateo County Parks 2007, p. VIII-1 - VIII-4).

Response 125-8: The commenter appears to imply the Amendment was influenced by decisions made by Julie McDonald, former Deputy Assistant Secretary for Fish and Wildlife and Parks; however, the proposed Amendment does not reflect any decisions made by or with input from Ms. McDonald. The commenter also appears to suggest that the Service's decisions have been made in bad faith. Likewise, the commenter suggests that Brookfield is driven by ulterior motives in its cooperation with the Service and its voluntary contribution of an endowment. However, the commenter did not provide information to substantiate these claims and neither allegation is justified.

Response 125-9: The commenter's opinion regarding the adequacy of the mitigation is noted; however, the Service will rely on all mitigation measures of the original HCP, subsequent amendments, new mitigation measures in the proposed Amendment, status of the Covered Species within the action area, public comments, as well as the endowment to make its Findings. It should be noted, that the Service's Finding on the proposed Amendment have not yet been made as the commenter appears to suggest.

Response 125-10 to 125-11: The commenter's recommended revisions to the HCP are noted. However, the HCP was implemented as a binding agreement among the Service, the State of California, the City of Brisbane, the City of South San Francisco, the County of San Mateo, and affected private landowners. The Service does not have single authority to revise the HCP or to demand additional mitigation from land owners. The composition of the HCP Trustees and the development of volunteer programs are issues outside the scope of the proposed Amendment and EA.

Literature Cited

- [HCP] San Bruno Mountain Habitat Conservation Plan Steering Committee. 1982. San Bruno Mountain Habitat Conservation Plan (Final). The County of San Mateo, South San Francisco, California.
- [Service] U.S. Fish and Wildlife Service. 2007. San Bruno Mountain Habitat Conservation Plan Amendment Environmental Assessment. Prepared by Jones and Stokes, Oakland, California.
- _____. 1982. Adoption and Implementation of the San Bruno Mountain Habitat Conservation Plan and Endangered Species Act Section 10(a) Permit. Final Environmental Impact Report and Environmental Assessment.
- San Mateo County Parks. 2007. San Bruno Mountain Habitat Conservation Plan 2007.
- [TRA] Thomas Reid Associates. 1982. Final report to San Mateo County Steering Committee for San Bruno Mountain: endangered species survey (San Bruno Mountain), biological study - 1980–1981. Thomas Reid Associates, Palo Alto, California.
- _____. 1989. Northeast Ridge Project Equivalent Exchange Amendment to the San Bruno Mountain Habitat Conservation Plan. Addendum to the Final Environmental Impact Report and Supplement to the Environmental Assessment on Implementation of the San Bruno Mountain Habitat Conservation Plan and Endangered Species Act Section 10(a) Permit.
- _____. 2006. San Bruno Mountain Habitat Conservation Plan Year 2006 Activities Report for Endangered Species Permit PRT-2-9818. Prepared by the County of San Mateo, Palo Alto, California.
- _____. 2007. Biological Study and Analysis of Conserved Habitat for Amendments to the Habitat Conservation Plan for San Bruno Mountain and Incidental Take Permit PRT 2-9818.